e-survey

PRODUCT CATALOG

e-survey

Floor 4, Building 3, No. 559, Zhuyuan Rd, Minhang District, Shanghai, China
esurvey-gnss.com | +86 400-999-8088 (Select 3)
Shanghai eSurvey GNSS Co., Ltd.

Website & Social media

esurvey-gnss.com

e-survey

About eSurvey

A UniStrong company, established in 2005, eSurvey started global business in 2018 with its nearly 20 years of R&D and production experience in the field of the geospatial industry. Our commitment is to deliver high-precision GNSS navigation and positioning solutions, as well as advanced 3D mapping, all supported by stable performance and continuous innovation. eSurvey empowers professionals across various sectors, including infrastructure construction, geographic information, precision agriculture, and marine surveying, to achieve unprecedented accuracy and operational efficiency.

eSurvey has built a powerful distribution network in more than 100 countries and regions, offering integrated products, solutions, and services for global users, based on its independently developed core technology, strong and reputable product performance, fast delivery, and reliable after-sales service system.

- Headquarters
- Regional Office
- Regional Parnter

Become Our Dealer

Contact Us

Marketing: marketing@esurvey-gnss.com
Sales: info@esurvey-gnss.com
Support: support@esurvey-gnss.com

100+
COUNTRIES
WE OPERATE IN

50+
PRODUCTS
WE OFFER

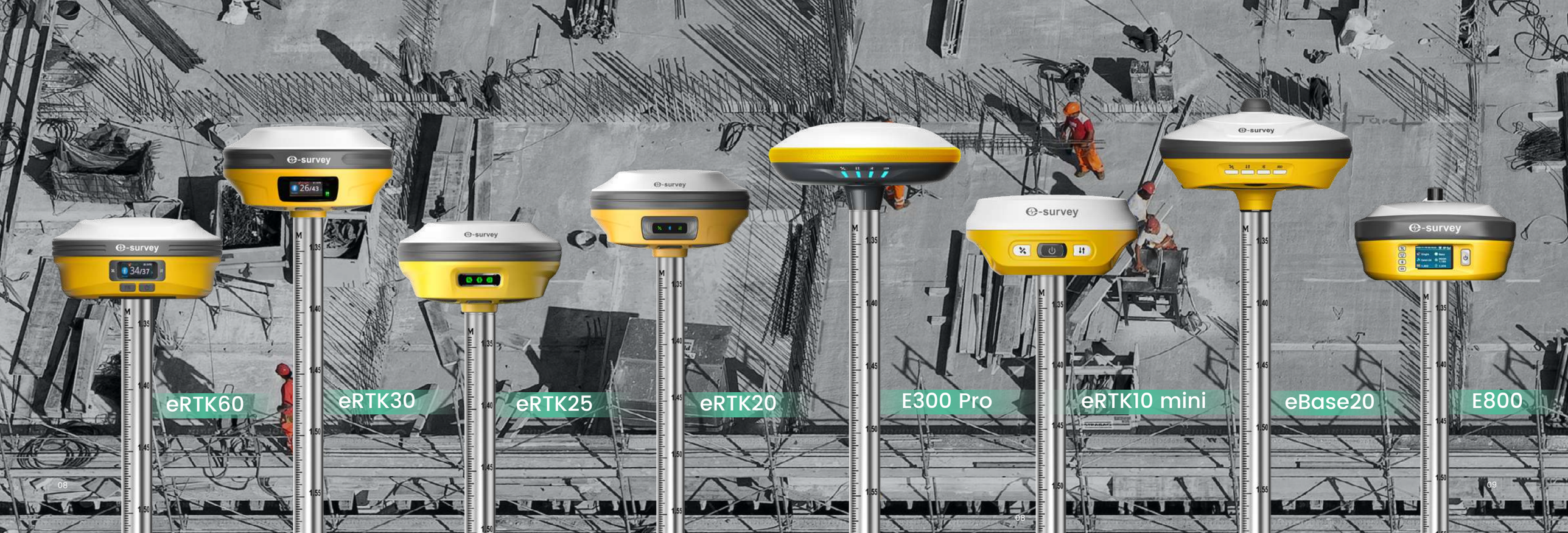
15+
INDUSTRIES
WE SERVE

CONTENTS

Products

Integrated GNSS Systems

Powered by self-developed IMU algorithms, high-performance GNSS chips, boards, radio modules, and an integrated antenna as a solid technological foundation, eSurvey GNSS receivers provide great precision and efficiency.



eRTK60 FULL-FEATURED VISUAL GNSS RECEIVER

The eSurvey eRTK60 GNSS receiver integrates high performance GNSS, IMU and dual-camera technologies to provide more reliable and diverse measurement results. Visual survey technology enables you to measure the point without physically reaching it, thereby giving you more flexibility in the field and maximizing productivity in your projects. The upgraded built-in radio supports longer communication distances. The extended working endurance of the eRTK60 is guaranteed by its hot-swap batteries. Its colorful LED screen also offers a more intuitive working status and operation interface.

Visual Survey: Measuring What You See

Visual survey technology provides accurate positioning coordinates from images captured in seconds.
Measure what you see, get the coordinates of previously unreachable and signal-blocked points.

CAD AR Stakeout: Improved Efficiency

CAD drawings are directly marked on the interface, thus there is no need to choose each point individually.
The CAD AR stakeout is a highly effective tool for optimizing stakeout operations and simplifying complex construction tasks in a variety of construction scenarios.

Hot-Swap Batteries: Providing Uninterrupted Service

Designed with a symmetric battery compartment and driven by sufficient charged batteries on hand, the hot-swap battery power system of the eRTK60 is meant to improve power availability while eliminating power-related downtime.

Colorful LED Display

View the primary status and basic information, set the work mode, and operate the device, allowing for more convenient and direct interactive actions.

Advanced Long-Range Tx/Rx UHF Modem

Integrated with the long range UHF modem, the eRTK60 is compatible with traditional major radio protocols. The maximum communication distance can reach 15 km with 2W transmit power in ideal environments.

Datasheet

eRTK30 VISUAL GNSS RECEIVER

The eSurvey eRTK30 GNSS receiver integrates with dual-camera technology for more applications. Its visual survey technology enables you to measure the point without physically reaching the point. This gives you flexibility in the field and maximises productivity in your projects. It supports immersive 3D stakeout and helps you do stakeout faster and improves your working efficiency. The eRTK30 is a perfect choice for diverse surveying applications.

Visual Survey: Measuring What You See

Visual survey technology provides accurate positioning coordinates from images and videos captured in seconds.
Measure what you see, get the coordinates of previously unreachable and signal-blocked points.

CAD AR Stakeout: Improved Efficiency

eRTK30 offers an immersive, intuitive perspective of the site to implement the stakeout. CAD drawings are directly marked on the interface, thus there is no need to choose each point individually. The CAD AR stakeout is a highly effective tool for optimizing stakeout operations and simplifying complex construction tasks in a variety of construction scenarios.

Multi-Constellation and Multi-Frequency

With 1408 channels of GNSS tracking, it provides stable and reliable accuracy. All GNSS signals come with the standard including GPS, BDS, GLONASS, Galileo, QZSS, NavIC, SBAS and L-Band.

Web UI

It allows users to view position status, set up working mode, download data, and update firmware from the Web user interface with any smart phone, tablet, or PC.

Max 60° Tilt Survey: A Different Way of Working

- Quickly measure accurate points while standing or walking without leveling the pole.
- Concentrate on where the pole tip needs to go, which is especially useful during a stakeout.
- Easily start a survey in environments that are hard to reach, such as building corners and slopes.
- No longer worry about the movement of the pole when measuring, provided that the pole tip is stationary.

Datasheet

eRTK25

THE VISUAL GNSS RECEIVERS WITH LASER PRECISION

The eSurvey eRTK25 is a high-precision GNSS receiver integrating laser ranging and a wide-angle dual-camera vision measurement system, designed for efficient operation in challenging environments such as daylight conditions, confined spaces, and extreme temperatures.

Laser + CAD AR Dual-Tech Integration

- **AR Stakeout:**
Overlay CAD designs onto real-world environments via AR, boosting on-site efficiency by 40%.
- **Laser Precision:**
Achieve centimeter-level accuracy with non-contact measurements, ideal for extreme temperatures or tight spaces.
- **High Performance and Stability:**
The eSurvey eRTK25 integrates laser ranging technology and AR vision stakeout, enabling robust centimeter-level positioning even in harsh or constrained settings. Its multimodal sensor fusion ensures operational adaptability across diverse scenarios, including full daylight visibility, narrow spaces, and extreme temperature ranges (-30°C to 70°C), making it ideal for industrial, construction, and geospatial applications requiring precision in dynamic environments.

Max 60° Tilt Survey

- **No-Leveling Measurement:**
Capture data while standing or moving, with the rod tilted at a maximum 60° incline angle.
- **Adapts to Complex Terrain:**
Easily access confined spaces (e.g., building corners and slopes) to boost efficiency..
- **Dynamic Stability:**
Maintains precision even if the rod shakes, as long as the tip remains stationary.

Advanced Long-Range Tx/Rx UHF Modem

Integrated with the long range UHF modem, the eRTK25 is compatible with traditional major radio protocols. The maximum communication distance can reach 10 km with 1W transmit power in urban environments.

Multi-Constellation & Multi-Frequency Support

1408 GNSS Channels: Simultaneously processes signals from GPS, BDS, GLONASS, Galileo, QZSS, NavIC, SBAS, and L-Band, ensuring stable centimeter-level accuracy for global positioning.

Datasheet

eRTK20

VISUAL STAKEOUT GNSS RECEIVER

The eSurvey eRTK20 GNSS receiver combines GNSS, IMU, wide-angle dual cameras, and a compact design to dramatically improve surveying efficiency. The CAD AR visual stakeout can increase project stakeout efficiency by 40%. With inbuilt radio (Tx and Rx) and a 60° inclination IMU function, The eRTK20 is ideal for any surveying scenario.

CAD AR Stakeout: Improved Efficiency

CAD drawings are directly marked on the Surpad interface, so no need to choose each point individually. The CAD AR stakeout is a highly effective tool for optimizing stakeout operations and simplifying complex construction tasks in a variety of construction scenarios. The eRTK20 improves stakeout productivity by 40% by combining CAD base maps and augmented reality (AR) visualization.

Multi-Constellation and Multi-Frequency

With 1408 GNSS tracking channels, it ensures robust and reliable accuracy while also being extremely resistant to multipath effects and interference. All GNSS signals come with the standard including GPS, BDS, GLONASS, Galileo, QZSS, NavIC, SBAS and L-Band.

Advanced Long-Range Tx/Rx UHF Modem and 4G Modem

The built-in worldwide 4G Network and Tx/Rx UHF modem enable eRTK20 to transmit GNSS corrections seamlessly regardless of the operating environment. The eRTK20 is compatible with traditional major radio protocols.

Max 60° Tilt Survey: A Different Way of Working

- Accurately measure points while standing or walking without leveling the pole.
- Focus on where the pole tip should go, especially during stakeouts.
- Conveniently conduct surveys in difficult-to-reach areas such building corners and slopes.
- No need to worry about the movement of the pole when measuring, as long as it remains steady.

Datasheet

E300 Pro FULL-FEATURED GNSS RECEIVER

The eSurvey E300 Pro is a fully functional GNSS receiver with an extremely compact design by eSurvey. With its high-performance GNSS board, it can track all present constellations and satellites. The GNSS, Wi-Fi, Bluetooth, and GSM four-in-one antenna, stable data transmission, RTK Aid and IMU function, make it suitable for all surveying applications.

Power Indicator: An Intelligent Hint of Working Time

Quickly check the remaining battery power in real time and figure out the working time without data loss.

RTK Aid Function: Uninterrupted Work

Work without interruption even when RTK corrections fail, powered by our RTK aid function.

Advanced Long-Range Tx/Rx UHF Modem

Integrated with the long range UHF modem, the E300 Pro is compatible with traditional major radio protocols.The maximum communication distance can reach 10 km with 1W transmit power urban environments.

Multi-Constellations and Multi-Frequency

With 1408 channels of GNSS tracking, the E300 Pro provides stable and reliable centimeter-level positioning accuracy in real time to suit any field data collection applications. All GNSS signals are supported, including GPS, BDS, GLONASS, Galileo, QZSS, NavIC, SBAS and L-Band.

Rugged Design: Better Resistance to Shock and Fall

Use it for many years because it's sturdy and can tolerate hard treatment.

Max 60° Tilt Survey: A Different Way of Working

- Quickly measure accurate points while standing or walking without leveling the pole.
- Concentrate on where the pole tip needs to go, which is especially useful during a stakeout.
- Easily start a survey in environments that are hard to reach, such as building corners and slopes.
- No longer worry about the movement of the pole when measuring, provided that the pole tip is stationary.

Datasheet

eRTK10 mini POCKET-SIZE GNSS RECEIVER

It integrates IMU tilt technology for efficient stakeout. It features a compact and lightweight design for easy portability and also serves as an ideal high-precision GNSS positioning sensor that seamlessly integrates into various industrial solutions.

Easy to be Integrated

With its configuration of voice prompts, indicator lights, a universal Type-C interface, and Bluetooth 5.0 EDR & BLE for seamless interaction and integration, this device provides stable high-precision GNSS positioning data. It is suitable for various industry solutions requiring high-precision GNSS positioning.

Max 60° Tilt Survey: A Different Way of Working

- Quickly measure accurate points while standing or walking without leveling the pole.
- Concentrate on where the pole tip needs to go, which is especially useful during a stakeout.
- Easily start a survey in environments that are hard to reach, such as building corners and slopes.
- No longer worry about the movement of the pole when measuring, provided that the pole tip is stationary.

Ultra-Portable

Palm-sized and weighing just 380g, this receiver is incredibly light and easy to carry. Its sleek design allows seamless integration into portable solutions, delivering stable high-precision GNSS data for a variety of industries.

AR Visual Stakeout: More Efficient Stakeout

There is no need to move the pole back and forth and rely on work experience during a stakeout. Follow the visual guide to precisely find the target stakeout point. Suitable for a non experienced user and boost efficiency by 50% .

Datasheet

eBase 20 PORTABLE GNSS BASE RECEIVER

The eSurvey eBase 20 is a professional and portable GNSS base receiver. With a high-precision GNSS module and tracking multiple frequencies, eBase 20 is specifically designed to work as a GNSS base station. Combining a 4G modem and internal radio, eBase 20 is a perfect choice for a base station. The eSurvey eBase 20 is ideal for applications such as UAV, USV, agriculture, intelligent driving, surveying and mapping, etc.

Multi-Constellation and Multi-Frequency

With 1408 channels of GNSS tracking, it provides stable and reliable accuracy. All GNSS signals come with the standard, including GPS, BDS, GLONASS, Galileo and QZSS.

High-Performance and Cost-Effective

Embedded with a high-precision GNSS module, eBase 20 provides high performance as a GNSS base station at a low cost. Easy to carry and simple setup process improves work efficiency.

Smart Base Station Service

The smart base station service works while connected to the CORS and gets an accurate position as a known point.

UHF and 4G modem

The built-in Global 4G Network and radio module allow eBase 20 to work perfectly as a base station to transmit GNSS corrections.

Instant Base Station Moved Alarm

When the base station is displaced, the eBase 20 will issue a real-time warning to avoid the collection of erroneous data. In addition, there is also a buzzer alarm when the battery is low and the receiver is not activated.

Web UI

It allows users to view position status, download data, and update firmware from the Web user interface with any smartphone, tablet, or PC.

Datasheet

E800 HIGH-PERFORMANCE GNSS RECEIVER

The E800 is a high-performance GNSS receiver that provides user-friendly solution that empowers survey professionals to capture highly accurate data in diverse applications. The durable IP67 design makes it possible to work in extreme environments. The colorful touchscreen is convenient for quick configurations.

5-Watt Internal Radio: Longer Working Distance

No longer need to carry external radio, for its internal radio's working distance can reach 10 - 15 km.

Impressive Battery Life: Longer Working Time

No longer need to worry about a full day's work with its massive 13,600 mAh battery, ensuring your data is saved safely.

1.45-inch Display: Colorful and Touchable

View primary status and basic information, set the work mode, and operate the device for more convenient and direct human-computer interaction.

RTK Aid Function: Uninterrupted Work

Work without interruption even when RTK corrections fail, powered by our RTK aid function.

32GB Internal Memory

The built-in 32GB internal memory can store more data, no need to worry about a long-time span project.

Max 60° Tilt Survey: A Different Way of Working

- Quickly measure accurate points while standing or walking without leveling the pole.
- Concentrate on where the pole tip needs to go, which is especially useful during a stakeout.
- Easily start a survey in environments that are hard to reach, such as building corners and slopes.
- No longer worry about the movement of the pole when measuring, provided that the pole tip is stationary.

Datasheet

LiDAR

In the global surveying industry's era of digital transformation, digital tools have become the new standard. We specialize in the development of high-precision, reliable, and highly efficient portable LiDAR systems designed to fully support modern surveying workflows. Utilizing advanced algorithms, our mobile scanners capture real-time 3D point clouds directly on-site, providing a true “what you see is what you get” experience. Serving as a vital link between the physical and digital worlds, our equipment enables data-driven decisions and accelerates innovation.

Applications of Three-Dimensional Point Cloud Technology

- Topographic surveying and geological mapping
- Mine and tunnel exploration
- Public safety investigation
- Infrastructure and underground space monitoring
- Forestry and agricultural resource management
- Power plant, pipeline, and industrial facility documentation
- Educational research and 3D film production

With our comprehensive point-cloud acquisition and processing solutions, we empower customers to achieve precise and reliable digital transformation.

eScan M1

eLidar A1

eScan T3/eScan T4

eScan M1

RELIABLE SCANNER FOR EVERY APPLICATION

The eScan M1 is an mobile 3D laser scanner, integrating point cloud scanning, panoramic image capture, and detailed visual recording into a single compact system. Its high-performance algorithm allows for real-time collection and processing of 3D data, significantly improving on-site operating efficiency.
Terrain mapping, mining, public safety, underground space surveying, forestry, oil and gas pipelines, construction workflows, education, and the film industry
are all common applications.

70m

Measurement Range Up to 70m

With a measurement range of up to 70 meters, this entry-level handheld mobile scanner strikes the perfect balance between performance and affordability. Designed to meet the vast majority of everyday scanning needs, it delivers exceptional value, making it a rare and smart choice for professionals who are new to 3D scanning.

Real-Time 3D Reconstruction

Equipped with a dual 5MP global shutter camera system, it generates accurate, true-color, and detailed 3D point clouds in real time.
Even in challenging environments such as dark, low-light, or textureless scenes, it maintains excellent mapping stability and localization accuracy.

cm

Centimeter Accuracy

The unfiltered point cloud thickness is just 1 cm, enabling an accurate representation of the real environment in real time. With point cloud precision 2 cm, it' s ideal for indoor and outdoor scenarios.

1.045kg

Lightweight and Easy to Use

Weighing only 1.045kg with battery, It has a continuous battery life of 1.5 hours, making it an ideal choice for scanning larger environments.


Education


Forestry


Media

Datasheet

eLidar A1

HIGH-PRECISION AIRBORNE LIDAR SOLUTION

The eLidar A1 LiDAR system is a fully integrated, high-precision airborne laser scanning solution. It combines eSurvey's proprietary high-performance LiDAR sensor, a high-accuracy POS system, an efficient data acquisition module, and an orthographic camera into a single compact unit. It is compatible with a wide range of UAV systems and supports minute-level point cloud generation and direct colorization without aerial triangulation. Paired with post processing software, it delivers an all-in-one workflow for seamless, high-efficiency, all-weather 3D data capture and near-real-time production—ideal for applications such as surveying, geology, power line inspection, forestry, and more.

750m

Extended Measurement Range up to 750m

With an impressive scanning range of up to 750 meters, this system is engineered for large-scale, high-altitude, and long-distance data acquisition. Whether deployed in mountainous terrain, expansive infrastructure, or complex industrial environments, it delivers precise and reliable 3D results with exceptional coverage.

Real-Time 3D Reconstruction

The industry's first airborne LiDAR system to support both real-time processing and post-processing workflows. In real-time mode, it delivers high-precision, visually rich, and measurable colorized point cloud models on the fly—enabling immediate insight and operational efficiency.

1.4kg

Lightweight and Easy-to-Use

With a total weight of just 1.4 kg, the LiDAR unit features a compact and refined design, making it ideal for lightweight aerial platforms and field portability.

AUTO

Fully Autonomous Operation

With an integrated power supply, one-touch takeoff, automated data collecting, and one-click data download, the system allows for efficient operation by a single user.

Direct True-Color Generation without Aerial Triangulation

Post-processing software enables rapid generation of 3D point clouds, allowing for direct true-color rendering without the need for aerial triangulation.

Smart Route Planning

Intelligent flight path planning supports both area-based mapping and corridor missions. The system automatically generates refined terrain-following and linear flight paths, along with calibration routes and coordinated turning maneuvers for optimized data acquisition.


Agriculture


Navigation


Power Inspection

Datasheet

eScan T3

SMART SCANNING STARTS HERE

From as-built surveys in smart construction and digital twins for intelligent manufacturer to historical conservation, tunnel inspection, ship retrofits, wall thickness gauges of steel ladle, and even public-safety applications, the eScan T3 is the scanner you can trust.
This mid-range pulsed terrestrial laser scanner delivers 1.5 mm accuracy in practically any application. Its ultra-compact 4kg chassis—among the lightest in its class— captures up to 1 million points per second, allowing you to complete a full-station scan very quickly, thus increasing your field productivity. Choose the eScan T3 to empower your projects with unparalleled speed, precision, and portability.

Measurement Range Up to 60m

With a scanning range of up to 60 meters and ±1.5 mm precision at 30 meters, the device is appropriate for a variety of industrial and field applications, including construction sites and manufacturing floors.

Fast & Efficient 3D Scanning

Achieve a complete 360° scan in just 2 minutes and 22 seconds, with up to 1 million points per second, delivering rapid and reliable data acquisition for demanding workflows.

Built to Go Anywhere

With a compact, durable design and a lightweight 4 kg frame, this scanner is engineered for effortless mobility and reliable performance, even in the toughest field conditions.

Precision Leveling with Dual-Axis Compensation

Engineered for stability and accuracy, the dual-axis compensator provides ±15° tilt correction and 18 arc-second leveling precision, ensuring reliable performance even on uneven terrain.

Seamless Remote Operation

Take full control from anywhere—whether via machine interface, smartphone, or tablet. Designed for maximum flexibility in the field or on-site.

Volume Measurement

Ladle Wall Inspection

Ship Retrofit

Datasheet

eScan T4

GO FURTHER SCAN DEEPER

From as-built surveys in smart construction and digital twins for intelligent manufacturer to heritage conservation, tunnel inspection, ship retrofits, wall thickness gauges of steel ladle, or even public-safety applications—eScanT4 is a pulse-based 3D laser scanner designed for high-precision measurements and rapid acquisition of massive geometric point cloud data in complex environments. Fully developed by eSurvey, the eScan T4 combines exceptional performance with intuitive operation, making it ideal for challenging field conditions. Due to external cameras, the eScan T4 delivers true-color 3D point clouds, enabling rich and detailed spatial documentation.

Measurement Range Up to 500m

With a scanning range of up to 500 meters and ±1.5 mm precision at 30 meters, the device is appropriate for a variety of industrial and field applications, including construction sites and manufacturing floors.

Fast & Efficient 3D Scanning

Achieve a complete 360° scan in just 2 minutes, delivering rapid and reliable data acquisition for demanding workflows.

Built to Go Anywhere

With a compact, durable design and a lightweight 4 kg frame, this scanner is engineered for effortless mobility and reliable performance, even in the toughest field conditions.

Precision Leveling with Dual-Axis Compensation

Engineered for stability and accuracy, the dual-axis compensator provides ±15° tilt correction and 18 arc-second leveling precision, ensuring reliable performance even on uneven terrain.

Seamless Remote Operation

Take full control from anywhere—whether via machine interface, smartphone, or tablet. Designed for maximum flexibility in the field or on-site.

Construtions

Digital Twin

Hertitage Preservation

Datasheet

Optical

eSurvey optical products are designed to simplify the field workflow, improve measurement accuracy and reduce the workload of surveyors. Featuring precise mechanical architecture, excellent optoelectronic design, and rich measurement applications in land surveying, urban surveying, construction, and deformation monitoring, eSurvey optical products are the perfect choices for you.

eTS2

eTS32

eRS100

eTS8

ESL2

ESL3

ET2A

eTS2 HIGH EFFICIENCY OPERATION TOTAL STATION

The eSurvey eTS2 is a high-precision manual total station, with longer measurement range. With standard USB flash disk interface, it can import and export data through USB disk more conveniently.A more concise design enables highly efficient measurement.

Longer Measurement Range

Capable of measuring distances up to 5,000 m with a prism and 1,000 m in reflectorless mode.

Faster Measurement

Fine measurement in 0.3 seconds and tracking in just 0.1 second significantly enhance the speed and convenience of surveying work.

More Reliable Result

Utilize liquid, dual-axis compensation (±4') for enhanced measurement stability.

Simple Interface, Easy to Operate

Clear operation interface and alphanumerical keyboard support users in doing survey work more easily.

Long Working Time

With a long-lasting 3100 mAh battery and a memory capacity of 100,000 points, it ensures your field measurement work is both efficient and uninterrupted.

Convenient Data Exporting

Quickly and easily transfer measured data to a USB flash drive for further processing.

Datasheet

eTS32 MOST ADVANCED ENGINEERING TOTAL STATION

The eSurvey eTS32 is a high-performance total station engineered for surveyors demanding exceptional accuracy and efficiency. The 3.5-inch color touchscreen simplifies operation, while integrated dual-axis compensation and automatic temperature/pressure correction eliminate manual adjustments. The eTS32 excels in construction layout, topographic surveys, and engineering applications, reducing setup time by 40% while maintaining high angular and distance accuracy. With multiple connectivity options, users can transfer data seamlessly and charge the device via portable power sources, making it the ultimate all-in-one solution for demanding surveying tasks.

Compact Innovative Design

With a modern, streamlined exterior, the eTS32 features an optimized keyboard layout for intuitive operation, reducing bulk and enhancing field usability compared to traditional total stations.

Extreme Environment Adaptability

Crafted with durable materials and rigorous construction, the eTS32 resists dust, moisture, and impacts, ensuring consistent performance in tough field conditions.

Field Efficiency Enhancement

Featuring a high-resolution color touchscreen for intuitive operation and clear display, ensuring easy use and efficient field work.

User-Friendly Connectivity

USB Host, Type-C, and Bluetooth interfaces support direct data transfer to USB flash drives and charging via portable power sources. No adapters needed for field operations.

Automatic Correction for Temperature and Air Pressure

Onboard sensors automatically adjust for temperature and air pressure without manual input, enhancing accuracy and efficiency.

Data Reliability Assurance

±2" angular accuracy, ±(2+2ppm) distance accuracy and ±6' dual-axis compensation ensure millimeter-level precision for critical project.

Datasheet

eRS100 ROBOTIC TOTAL STATION

The eSurvey eRS100 is a robotic total station that features automatic target recognition, aiming, angle/distance measuring, tracking, and recording. The eRS100 uses innovative auto-aim technology and intelligence algorithms to rapidly locate prism centers, ensuring accuracy in complex environments. With high-speed direct-drive motors (180°/s) and reflectorless range up to 1,000m, it outperforms competitors in speed and precision (±1mm+1ppm accuracy in prism mode). The eRS100 dramatically reduces labor intensity via one-person operation, minimizes errors through automated processes, and boosts productivity across construction layout, road design, infrastructure monitoring, land development, etc. The eRS100 is ideal for deformation monitoring, bridge/tunnel construction, and building surveys. It can save time, effort, and money by operating 24/7.

High Precision: Unrivaled Measurement Accuracy

Delivers 1″ angular accuracy -6 and ±(1+1×10 D)mm distance precision (prism mode), ensuring reliable results for critical projects.

Automated Measurement: Reduce Manual Intervention

ATR technology is used for fast target locking and continuous tracking, which reduces manual input and increases efficiency by 40%.

Direct-Drive Motor System: Swift & Precise Positioning

Achieve 180°/s rotation with 1″ micro-motion control for rapid positioning in dynamic environments.

SurPad Compatibility: Enhanced Data Workflow

Seamlessly interact with SurPad software for project management, data storage, and speedy file export, hence streamlining workflow.

Powerful System: Smooth Performance & Ample Storage

Run on Android 11.0 for stable operation and easy updates. With 8GB RAM and 128GB ROM, it allows for flawless multitasking and ample storage for large project data.

Single-Operator Measurement: Maximize Workforce Efficiency

Allow for one-person operation with auto-tracking and remote control, lowering labor costs and enhancing flexibility.

Datasheet

eTS8 ANDROID SMART TOTAL STATION

The eSurvey eTS8 is a high-precision manual total station, with accurate angle and distance measurement. It can work reliably and deliver good results even in harsh environments. Its simple operation makes most surveying and stakeout tasks more efficient.

Android 11.0 Operating System: Powerful and Intelligent

Upgrade software and customize functions based on different needs. Powered by the open platform and high stability of the Android 11.0 operating system, enjoy fast processing of large amounts of data. The system can easily run complex computing programs with an MT6762 core processor, 4GB RAM, and 64GB ROM.

5.5-inch HD (720 x 1280) Display: Touchable and Interactive

Enjoy effortless data entry with an intuitive, user-friendly interactive interface.

Comprehensive Interface for Data Communication

Quickly and easily achieve data communication via the built-in Bluetooth, Wi-Fi, Wi-Fi hotspot, 4G module, and USB interface; experience efficient transmission and intelligent interconnection through the Internet and cloud platform.

Highly Scalable Development Kit: Rich APP Expansion

Its high-performance secondary development program empowers the customization of tailored functions to meet diverse operational scenarios.

Map Loading and Visual Graphic Importing

Check the spatial location relationship between measurement points and instrument stations to inspect and plan your survey work, with the large-capacity 2D maps loaded online. Control the survey area at any time and compare with the actual measurement work results in real-time, according to the DWG visualization graphics.

Datasheet

ESL2 PRECISE AUTOMATIC LEVEL

The eSurvey ESL2 is suitable for geodetic control, construction of roads, and industrial applications. The ESL2 with ESM1 can supply higher accuracy and work to monitor structural deformations. The use of an automatic compensator speeds up work and improves accuracy. ESL2 operates in the range of temperatures from -30℃ to +50℃ .

One Key for Compensator Checking

Directly check the compressor by the specific press button.

Detachable Eyepiece

The detachable eyepiece allows for comfortable observation of steep sights, even directly at the zenith, by simply replacing the original eyepiece with an optional diagonal eyepiece.

Compensator of Air Damper

No longer need to worry about the interference from ambient magnetic fields, for the air damper can reduce shakes to guarantee the accuracy and efficiency of measurement even in complex environments subject to vibration or shock.

Parallel Plate Micrometer

A parallel plate micrometer helps the user read more accurately, and measure more precisely.

Easy to Use

Able to complete the survey job in no time.

Use in Multiple Scenarios

Use the ESL2 in Industrial measurement, topographic surveys, deformation monitoring, etc.

Datasheet

ESL3 MAGNETIC DAMPING AUTOMATIC LEVEL

The ESL3 features a magnetic damping compensation system, characterized by a wide compensation range and high-accuracy compensation. This ensures exceptional equipment precision and measurement efficiency, even in complex environments prone to vibration or shock. Featuring 32x magnification, a 38mm large clear aperture, and a 550nm coating, the ESL3 ensures fast and smooth measurements. Its rugged all-metal construction and IP66 rating provide outstanding adaptability to demanding environmental conditions.

Magnetic Damping Compensation System: Making Accuracy More Stable

Enjoy a better measurement experience with a compensation range of ±15' and quick leveling 1.5s, powered by the magnetic damping compensation system that guarantees the accuracy and efficiency of measurement even in complex environments subject to vibration or shock.

Clear and Detailed Readings

Enjoy exceptionally clear and detailed readings with 32x magnification, enhanced light capture through a 38 mm large aperture, and reduced eye strain during long-term observation with the 550 nm anti-reflective coating.

Full Metal Body Design

Experience metal body that makes the ESL3 rugged and durable while shielding interference to the compensator system from the external environment and ensuring accurate and reliable measurement accuracy.

IP66 Certified

No longer need to worry about using the ESL3 even in dusty and humid environments, and easily handle complex working conditions.

Light and Compact

The compact design makes the ESL3 easy to carry.

Simple Operation

Its user-friendly interface and intuitive button design enable quick and trouble-free measurement.

Datasheet

ET2A PRECISE ELECTRONIC THEODOLITE

The ET2A is a high-precision electronic theodolite. This device has 2" angle measurement accuracy and a 30x magnification effect to meet various working requirements.

Absolute Coding

Experience complete coding angle measurement system that is digital, intelligent, stable, and reliable.

Laser Function

Experience a perfect combination of digital theodolite and laser, with laser pointing and laser centering function.

Designed for Harsh Environments

Engineered for exceptional durability, the ET2A can work reliably for years in harsh environments like dust, mud, rain, and extreme heat or cold. Its rugged performance comes from a highly integrated circuit board, high-quality IC components, and an imported CCD sensor.

Smart Sensor

You no longer need to worry about tilt errors, for the independent tilt sensor will automatically correct tilt errors.

Long Operation Hours

1600 mAh rechargeable Li-on battery support working for about 20 hours.

Digital Readings

Digital readings are quick and reliable, making the measurement more efficient.

Datasheet

USV

Unmanned surface vessels (USVs) are remotely operated boats designed for hydrographic surveying. The eSurvey USVs combine exceptional usability, stability, rugged hulls, and high-performance design into a robust system. Equipped with echo sounders, GNSS positioning, live video streaming, and wireless transmission capabilities—plus an advanced route-planning algorithm—these USVs enable fully autonomous navigation and accurate surveys along planned paths.

VE115

VE158

VE115

A MULTI-PURPOSE USV PROVIDING MULTI-MISSION CAPABILITIES

The eSurvey VE115 is a full-integrated innovative solution for 3D bathymetric surveys and is widely used for different types of research including hydrology, leakage, water-quality studies, the contour of streams and reservoirs, storage and fill-in reservoirs and ponds, etc. The VE115 carries up to 15 kg of payload and is completely autonomous, it is safely operated from the shore. The VE115 offers an unmanned operation solution with a shallow draft, high navigational accuracy, and stable hovering for hydrologists.

Exceptional Hull Design

Experience a trapezoidal-shaped trimaran with better load and better ability against wind and waves, no longer need to worry about bumping and stranding for the installation position of the propeller levels. The hull makes placing the USV on the shallow shore possible.

Modular Design and Ease of Maintenance

Easily assemble and disassemble all parts for maintenance, and experience remote assistance if there is a hardware problem. That is, we can remotely guide you to detect which part is wrong and send you the parts to replace it, which greatly simplifies the repair process and avoids delays in sending the whole USV back.

Powerful technology: 700W Power for Each Thruster

The VE115 can reach 6 m/s by 1400w total strong power, which can perform well against water current. It is better for use in the ADCP survey.

Expand Your Unmanned Survey Capability

Freely choose the most suitable GNSS system from all eSurvey GNSS receivers and the needed sensors from single-beam echo sounder, dual single-beam echo sounder, ADCP, and online water quality monitoring system and water sampling system.

Compatible with ADCP, Long Endurance

The VE115 supports a wide variety of Acoustic Doppler Current Profiler (ADCP) systems available on the market. The VE115 weighs 25 kg, it's easy for two men to operate and transport. Powerful battery and low consumption supports 6 hours of endurance.

Multiple Safety Protection Mechanisms

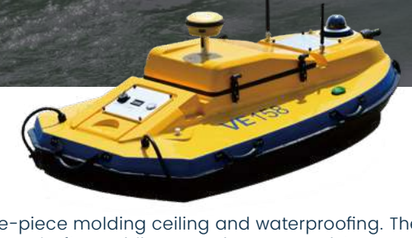
Monitor the operational status of the USV in real-time, supported by the 360° full view camera, no longer need to worry about obstacles encountered during navigation for the ultrasonic obstacles avoidance module can help timely and effectively avoid obstacles, and no longer need to worry about communication loss due to the multiple low-voltage and safe return mechanisms to ensure navigation safety.

Datasheet

VE158

A MULTI-PURPOSE SURVEYING UNMANNED SURFACE VESSEL

Introducing the eSurvey VE158, a groundbreaking and fully integrated solution designed specifically for 3D bathymetric surveys. This innovative system has gained widespread recognition across a range of studies, including hydrology, seepage analysis, water quality studies, profiling streams and reservoirs, and managing reservoir and pond impoundment.
The VE158 boasts a meticulously engineered hull with a comprehensive sealing design.
To ensure maximum protection, anti-collision strips have been strategically installed around the hull, providing resistance against sinking and corrosion. The body design is optimized for space efficiency, featuring a modular structure that is lightweight yet capable of carrying substantial loads.



Exceptional Hull Design

The unique M-type trimaran hull features a one-piece molding ceiling and waterproofing. The hull structure is modular and designed with a shallow draft, providing superior wave resistance and unbeatable stability.
To ensure maximum durability and strength, the hull is brilliantly crafted out of Kevlar and carbon fiber composite materials, furnishing it with exceptional pressure resistance.

Empowering You with the Necessary Force

Equipped with a ducted propeller, our system boasts high-speed sailing capabilities while maintaining optimum performance during low-speed operations. The propeller is designed for effortless disassembly and maintenance, ensuring hassle-free upkeep.

Unparalleled Battery Longevity

Our intelligent battery system incorporates a fast-charging design, ensuring efficient charging times.
Not only is our system lightweight and easy to carry, but it also boasts exceptional endurance, allowing for extended operation periods. The battery system is engineered for numerous cycles, maintaining its performance over time.

Compatible with Multiple Beams, Extend Operation Mode

Hardware Composition:
Precision-designed cabinet; Lightweight and portable, easy to install and use; Experimentally verified by GJB, good performance in all kinds of environments; Professional team after-sales service.
Software Composition:
100% self-developed; Simple and clean operation interface; Ultra-high data quality; Standard protocol output, strong compatibility.

Seamless Communication Made Easy

Our system is equipped with both bridge and network communication modules, offering flexibility to cater to a wide range of operating conditions. With these advanced communication capabilities, distance limitations are eliminated, ensuring uninterrupted and reliable signal transmission.

Ensuring a Safe and Efficient System

Our system provides support for low voltage and lost automatic return, mitigating any potential risks and ensuring stable and reliable performance.
With the ability to choose between straight-line return, original return, and set route return, our system is designed to operate seamlessly and safely in any environment.

Datasheet

Radio

eSurvey external radio models are base radios for wireless applications. They can provide reliable data communications for mission-critical applications where a combination of stability, supreme performance, and long-range are required.

TRU35

ADVANCED & RUGGED EXTERNAL RADIO FOR A LONG-DISTANCE TRANSMISSION

The eSurvey TRU35 is a compact, high-power, half-duplex digital radio module. Designed with an advanced 32-bit Cortex-M4 microcontroller, it incorporates sophisticated wireless transceiver RF technology and digital communication protocols. It incorporates high-quality RF components and delivers excellent EMC and EMI processing.

Wireless Connection

Achieve connection with the receiver via cable or Bluetooth.

Convenient Configuration

Directly configure the TRU35 by SurPad software, independently developed by eSurvey, via Bluetooth, including its mode, protocol, baud rate in the air, frequency, and power level.

Over Voltage Protection

With the two-stage surge protection, no longer a need to worry about damage to the TRU35 when the input voltage or current exceeds the normal range of positive and negative stages are reversed.

Thermal Protection

No longer worry about the effect of temperature on the power, for the TRU35 can adaptively adjust the transmit power, automatically reduce the power when the temperature is too high, and increase the intensity when temperature decreases to ensure the TRU35 is always in a stable power range and will not be damaged by overheating.

Standing Wave Detection Protection

No longer worry about damages caused by a long-time open circuit or short circuit.

Long Transmission Distance

The transmission distance can reach up to 14 km with high power operating under optimal conditions.

Datasheet

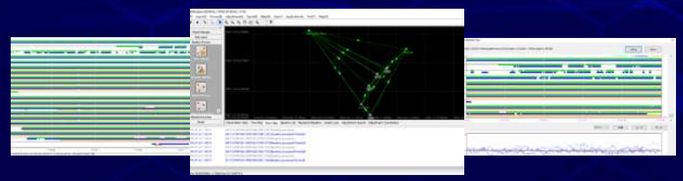
Software

eSurvey software delivers a professional, advanced, and innovative solution tailored for surveying, base station construction, and GIS data acquisition.

- Surpad4.2: convenient and easy-to-use data acquisition software, owning a wealth of measurement functions and making the surveyor's work more efficient and comfortable.

- GEOsolution: powerful post-processing software, owning many preset coordinate systems and advanced data processing algorithms to process static data and obtain reliable results quickly.

SurPad4.2



GEOSolution

SurPad4.2

POWERFUL COMPREHENSIVE FIELD DATA COLLECTION SOFTWARE

Based on the Android platform, the eSurvey SurPad 4.2 software is designed to assist professionals with all types of land surveying projects in the field. Combining with the international mainstream of surveying and mapping data acquisition function, it integrates with professional receiver control, point collection, stakeout, GIS data collection, road measurement, road design, cross-section measurement, railway stakeout, and COGO functions. Its comprehensive functions enhance users' work efficiency.

Powerful Functions

Enjoy the powerful functions, including tilt survey, CAD, line stakeout, road stakeout, GIS data collection, COGO calculation, QR code scanning, FTP transmission, etc.

Easy-to-Use UI

Freely choose the desired display style, including list, grid, and customized style, and enjoy easy operations with graphic interaction, including COGO calculation, QR code scanning, FTP transmission, etc.

Compatible with Any Android Devices

Use it on all Android devices (Android 7.0 and above), including eSurvey handhelds, Android phones, tablets, and other third-party Android devices.

Abundant Formats for Importing and Exporting

Supports direct import and export of both standard industry file formats and user-customized formats.

Advanced Display of Base Maps

Supports the import of different formats of base maps including, but not limited to AutoCAD formats (DXF, DWG), SHP and Land XML, which provides a more user-friendly experience during fieldwork.

Powerful CAD Function

Surpad 4.2 features a powerful built-in CAD function that enables seamless import, export, creation, and editing of CAD graphics—both on-site and off-site.

Key Functions

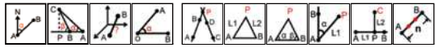
More comprehensive and rich survey and stakeout functions to improve the efficiency of your work.

Multiple road designs, road measurement, cross section stakeout, etc.

Rich built-in coordinate system parameters for surveying and mapping without creating it by yourself, which is time-saving and trouble-saving.

With GIS data collection, the information on various map attributes, facilities, assets, and organizational data can be digitized and organized on a target GIS system in appropriate layers.

Rich COGO calculation for solving your coordinate geometry problems:



Advanced CAD data management, supporting drawing CAD objects, importing files of DXF, DWG and XML formats, and exporting files of DXF format.

Optimized tilt survey correction algorithm and procedure to boost your efficient fieldwork.

Datasheet

GEOSolution

SIMPLE & INDISPENSABLE POST PROCESSING SOFTWARE

Simple and powerful post-processing software, owning many preset coordinate systems and advanced data processing algorithms to process static data and obtain reliable results quickly.

Rich Preset Coordinate System

Satisfy all your coordinate system needs with numerous built-in options. Customize and export your coordinate system parameters to suit your specific requirements.

PPK Data and Static Data Supported

Quickly and accurately process static and PPK data, making your job easier.

Output Format Customizable

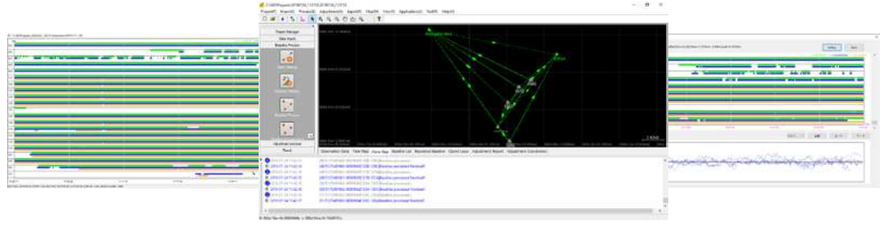
Customize the format of the output results, allowing you to output your measurements more quickly and efficiently.

Standard Data Processing Reports

Know the accuracy and results of baseline and measurement differential solutions via the informative reports on Static data processing.

Safely Stored Projects

The entire workflow—including baseline processing, network adjustment, and related operations—can be managed directly within the project folder, with all actions automatically recorded.



Datasheet

Precision Agriculture

Precision agriculture is a farm management approach oriented towards higher efficiency that uses information technology to ensure that crops and soils receive the accurate information needed for optimum health and productivity. It enables farmers to work more efficiently and effectively, including fertilization, pesticide spraying, tillage, and irrigation. Thus, farmers can get greater crop yields with fewer inputs and less environmental pollution.

EAS100

ePL10

EAS301 Pro (Motor)

EAS301 Pro (Hydraulic)

EAS401

EAS502

eASC105

eASC107

EAS100

AUTO-STEERING SYSTEM FOR PRECISION AGRICULTURE

EAS100 is eSurvey's new generation electric wheel-based autosteering system. EAS100 could transfer farm work from fully manual driving to semi-automatic operation. It means high time efficiency and less operator fatigue. Based on the route planning algorithm, the vehicle could go through the same paths every time to seed, spray, and harvest with ±2.5 cm accuracy, which increases crop yield and reduces chemical usage.

Split Type Design: No Worry for Vehicle Shaking and Signal Interference

IMU modem and GNSS receiver integrated into one box, and rigid connection with the vehicle makes the system shaking-free and less electromagnetic interference to GNSS signal receiving via professional surveying antenna.

All-purpose System: Suitable for Various Types of Agricultural Machinery

Apply it to multiple types of agricultural machinery, including tractors, transplanters, sprayers, harvesters, etc., to make your farm work more effectively.

New Electronic Motor: Less Cable and Easier to Use

EW2 motor integrated with simplified harness and switch will make operation more convenient and fast.

Easy Installation: No Need to Change Hydraulic Circuit

Install or remove it from your agricultural machinery as fast as 15 minutes.

High Control Accuracy with Ultra-low Speed

0.2km/h

Enable ±2.5 cm control accuracy even when the vehicle speed is as low as 0.2km/h, and no longer need to worry about fine planting vegetables and fruit crops.

24-hour Uninterrupted Work

24H

Continuously work even in the day with heavy UV lights or at night. Free RTK aid function could maintain centimeter accuracy for 600 seconds when the EAS100 lost correction data.

Datasheet

Datasheet

ePL10

LAND LEVELING SYSTEM FOR PRECISION AGRICULTURE

ePL10 Leveling System is a modern agricultural machine that uses high-precision satellite positioning technology and hydraulic control systems to achieve high-precision leveling of farmland. It can automatically adjust the blade position by real-time monitoring of ground elevation changes to ensure centimeter-level leveling of operations. It is widely used in paddy fields, dry land, orchards and other application scenarios.

Multiple Operation Routes

Support one-click benchmarking, three-point benchmarking, and multi-point ground benchmarking.

High Positioning Accuracy

Based on Beidou/GPS/GLONASS/GALILEO multi-frequency positioning system, fast positioning speed, and high accuracy.

High Leveling Accuracy and Stable Performance

±2.5CM

Control accuracy ± 2.5cm, the height difference between front and back on flat ground is basically within 2cm.

Easy Operate

Easy to use, simple to operate, and can quickly enter the leveling operation.

Multi-Terrain Adaptability

Suitable for dry field, paddy field graders, scrapers and other machinery.

EAS301 Pro

ELECTRONIC MOTOR AUTO-STEERING SYSTEM

Independently developed by eSurvey GNSS, the eSurvey EAS301 Pro is a multi-functional electric wheel-based auto-steering system. The EAS301 Pro could transfer farm work from fully manual driving to semi-automatic operation. It means high time efficiency and less operator fatigue. Based on the route planning algorithm, the vehicle could go through the same paths every time to seed, spray and harvest with ±2.5 cm accuracy, which increases crop yield and reduces chemical usage.

All-purpose System: Suitable for Various Types of Agricultural Machinery

Able to apply it to multiple types of agricultural machinery, including tractor, transplanter, sprayer, harvester, etc., to make your farm work more effectively.

Easy Installation: No Need to Change Hydraulic Circuit

Install or remove it from your agricultural machinery as fast as 15 minutes.

Smart ECU: Easy Configuration and Upgrade

EAS301 Pro's ECU is based on a Linux system, allowing users to view position status, set up working mode, and update firmware from the Web user interface with any smartphone, tablet, or PC.

High Control Accuracy with Ultra-low Speed

Enable ±2.5 cm control accuracy even when the vehicle speed is as low as 0.2 km/h, and no longer need to worry about fine planting vegetables and fruit crops.

24-hour Uninterrupted Work

Continuously work even in the day with heavy UV lights or at night. Free RTK aid function could maintain centimeter accuracy for 600 seconds when the EAS301 Pro lost correction data.

Rich Optional Functions

Users could choose upgradable functions like 20 Hz DB9 NEMA direct output, camera, and ISOBUS-VT.

Datasheet

Datasheet

EAS301 Pro

HYDRAULIC AUTO-STEERING SYSTEM

The eSurvey EAS301 Pro is an eSurvey hydraulic retrofit auto-steering kit. The EAS301 Pro noticeably improves the operation efficiency of agricultural machinery by the centimeter-level accuracy of repeated farming operations and 24-hour uninterrupted work even in the day with heavy UV lights or at night. It also reduces the labor intensity of drivers and increases the unit output.

Hydraulic Installation: Longer usage and Reserve Steering Wheel

Hydraulic retrofit kit merges auto-steering system into tractor hydraulic system, allowing users to use a longer time and will not change the current steering wheel.

Smart ECU: Easy Configuration and Upgrade

EAS301 Pro's ECU is based on a Linux system, allowing users to view position status, set up working mode, and update firmware from the Web user interface with any smartphone, tablet, or PC.

High Control Accuracy with Ultra-low Speed

Enable ±2.5 cm control accuracy even when the vehicle speed is as low as 0.2km/h, and no longer need to worry about fine planting vegetables and fruit crops.

Free from Terrain Worries

No longer need to worry about rough terrains, supported by our T3 terrain compensation technology. It minimizes skips and overlaps between each pass when working on complex and sloping fields.

24-hour Uninterrupted Work

Continuously work even in the day with heavy UV lights or at night. Free RTK aid function could maintain centimeter accuracy for 600 seconds when the EAS301 lost correction data.

Rich Optional Functions

Users can choose upgradable functions like 20 Hz DB9 NEMA direct output, camera, and ISOBUS-VT.

EAS401

ELECTRONIC MOTOR AUTO-STEERING SYSTEM

EAS401 is an automatic steering system independently developed by eSurvey and dedicated to the field of Precision agriculture. It can be used in various agricultural applications. At the same time, it can transform manual agricultural labor into semi-automatic machine operations, which can greatly reduce human costs, extend farming time, and improve land utilization and crop yield.

Display-Control Integration

No need to install a GNSS receiver on the top of the tractor; the positioning control and display are integrated, reducing hardware complexity.

Easy Installation: No Need to Change Hydraulic Circuit

Install or remove it from your agricultural machinery as fast as 15 minutes.

Less Cabling

Fewer hardware means fewer wiring harnesses, while also making installation easier.

High Control Accuracy with Ultra-low Speed

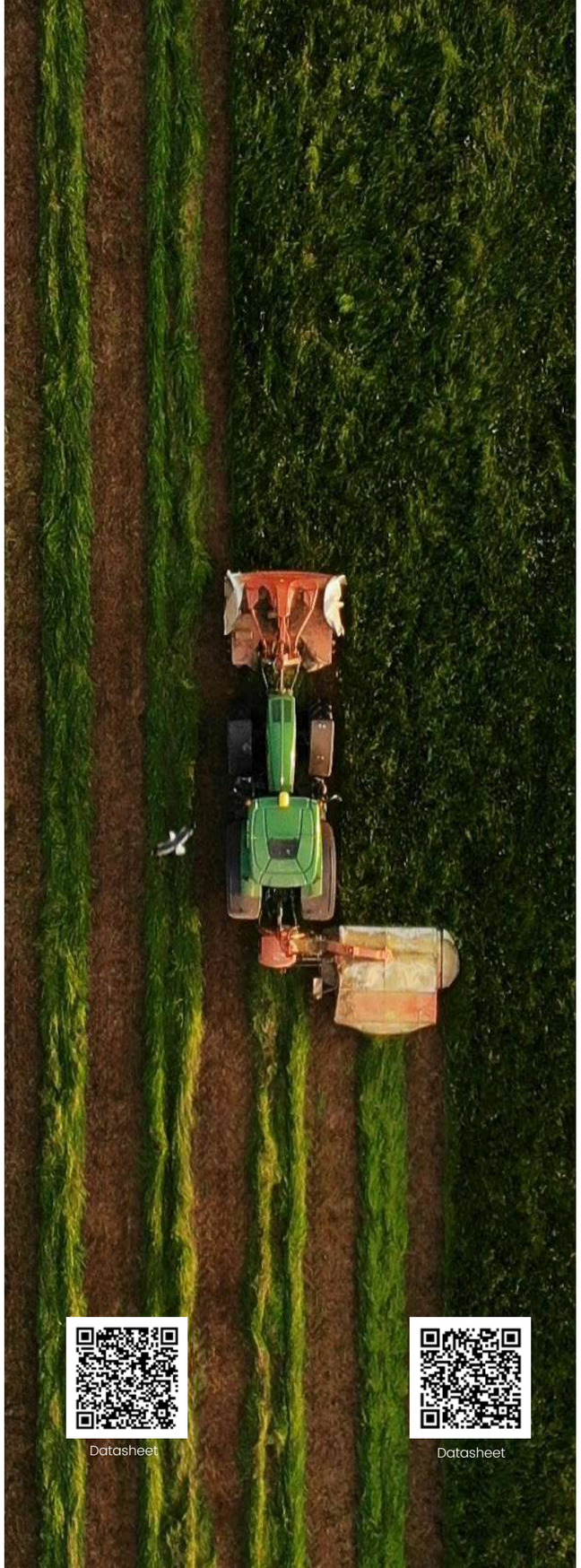
Enable ±2.5 cm control accuracy even when the vehicle speed is as low as 0.2 km/h, and no longer need to worry about fine planting vegetables and fruit crops.

Easy to Use

The simplified software design and refined hardware wiring harness design make the entire system operation very user-friendly and easy to get started.

More Stable Vehicle Attitude Sensing

With standard external IMU, no need to purchase additional IMUs inside the car to detect more accurate vehicle posture. No longer need to worry about rough terrains, supported by our T3 terrain compensation technology. It minimizes skips and overlaps between each pass when working on complex and sloping fields.



Datasheet

Datasheet

EAS502

ELECTRONIC MOTOR AUTO-STEERING SYSTEM

Independently developed by eSurvey, this multi-functional auto-steering system integrates a 12-inch high-performance display, EW3 electric steering wheel, and MC6A intelligent control unit.
It enables semi-automatic operation for agricultural machinery, reducing operator fatigue and improving work efficiency. With high-precision positioning and steering control, it ensures consistent path execution for seeding, spraying, and harvesting, enhancing crop yield and reducing resource waste.

Versatile Compatibility

Suitable for tractors, transplanters, sprayers, harvesters, and construction machinery.

High Precision

Combined with MC6A's RTK positioning accuracy (0.8cm+1ppm horizontal) and EW3's precise steering, ensuring stable operation.

Durable & Reliable

Industrial-grade components with wide temperature resistance and IP65/IP67 protection, adapting to harsh outdoor environments.

Easy Operation

12-inch high-brightness touch display with Android system, supporting intuitive configuration and real-time monitoring.

Flexible Communication

Integrated 4G, Wi-Fi, and radio modules for stable data transmission and remote control.

eASC105/107

AUTOMATIC SPRAY SYSTEM

The automatic spray system is an application expansion product based on the navigation system. Intelligent spray can be used in combination with assisted driving navigation or guidance functions to achieve the effect of precise spraying operations through variable control, realizing slow spraying when walking slowly, fast spraying when walking quickly, and no spraying when stopping. The intelligent spray control system is mainly used in conjunction with boom sprayers to accurately and quantitatively spray chemical herbicides, pesticides or micro-fertilizers, etc. It is widely used in plant protection operations and other agronomic spraying operations for crops such as cotton, corn, soybeans, wheat, rice, potatoes, and plants such as Chinese herbal medicines and forage.

Diverse Compatibility

Can be used in combination with assisted driving navigation to achieve multiple functions on one screen.

Strong Corrosion Resistance

The outer shell of each valve body is made of nylon anti-aging plastic core components, stainless steel and other materials.

Trustworthy Reliability

The cable connector is waterproof to prevent short circuits, circuit instability and other faults.

Wide Adaptability

Working pressure and connector specifications match most boom sprayers, making it easy to install on various boom sprayers.

Support Control of 5/7 Sections

The system can control up to 5/7 valve groups to achieve more precise operations.

Datasheet

Machine Control

Based on the fusion technology of GNSS and sensors, the eSurvey machine control technology can be used to accurately position earthwork machinery. Operators can easily and accurately operate the machine to work compared to the machine's position and design surface. Furthermore, the eSurvey machine control allows you to monitor the construction status remotely through the cloud, manage the machine, and assign tasks, making your project more efficient.

eME30 3D GNSS EXCAVATOR GUIDANCE SYSTEM

Support the global coordinate library, and provide multilingual versions for global users; Supports CORS, radio, and other differential modes. Support multi-project and multi-site management, and can quickly switch between multiple sites. Support backhoe, hydraulic breaker, drum cutter, face shovel, tilt bucket, and other accessories, with fast switching; Supports bucket tooth tip wear compensation, allowing for high-precision positioning even on older buckets.

Adaptation Flexibility

Support global coordinate library, and provides multilingual versions for global users;
Supports CORS, radio, and other differential modes.
Support multi-project and multi-site management, can quickly switch between multiple sites;
Support backhoe, hydraulic breaker, drum cutter, face shovel, tilt bucket, and other accessories, with fast switching;
Supports bucket tooth tip wear compensation, allowing for high-precision positioning even on older buckets.

Operation Safety

No more traditional survey and stake out,bucket tip is your new tool.
Set up an e-fence as an avoidance zone to decrease accidents and economic compensation while also improving construction site safety.
System abnormal status reminder to prevent problems caused by sensor abnormality or improper operation.

True and Productivity

Independent innovation technology, the system accuracy reaches 3cm RMS , suitable for projects with strict standard.
Support the Cloud platform Data storage, playback,real-time supervisor and management.The data is real and effective, allowing for remote management of quality and progress. The whole process data is automatically collected, distributed, and archived, making it convenient for data query, unified analysis, and decision-making assistance;
Construction process data visualized, real-time replay of construction process, intuitive, and construction outcome report can be found as inspection data.

More Attachment Support

The eME30 system supports tilt buckets, twisting buckets, hydraulic breakers, drum cutters. Once set up, there is no need to measure again when changing attachments.

Accomplishing More in Less Time

Quickly calibrate. A breakthrough new calibration procedure that takes only 15 minutes, requires no difficult operation, and can be completed by a single person and machine. It is easy, efficient, and accurate.
Horizontal guide auxiliary lines and horizontal offset display;
Point mark layout function, which can mark the position, perform point library management, and indicate the guidance to the target point;

Datasheet

eMC10 CRANE 3D GNSS GUIDANCE SYSTEM

The eSurvey eMC10 Crane Intelligence System integrates multi-constellation precise positioning with real-time 3D guidance via sensor fusion, accurately tracking the crane hook's coordinates in real time.
Using coordinate files as design blueprints, it swiftly meets design specifications, bypassing conventional surveying.
It allows the operator to complete tasks quickly and precisely, reduces rework, increases productivity, and raises project profitability.

Flexible Adaptation

Adaptable to different brands and types of cranes with no system limitations.
Support global coordinate library, multi-project, multi-site management, and network differential.

Operation Convenience

Allow clients to create design files locally, eliminate the need for complex design processing conversion on PC software.
Enable fast construction.
It is unaffected by the environment and allows 24-hour construction.
Automatically identify ramming points and record key data such as the number of ramming strokes, ramming distance, and ramming sedimentation.

Quality Monitoring

Allow remote monitoring of the construction process, quality, and progress.
Enable prompt detection of deviations and provide early warning for corrective action.
Real-time recording and transmission of key parameters of the construction process to ensure construction quality.

Security

Stakeless construction enhances site safety by eliminating the need for surveyors to sample the datum line. The electronic fence also enables the setup of danger avoidance zones.

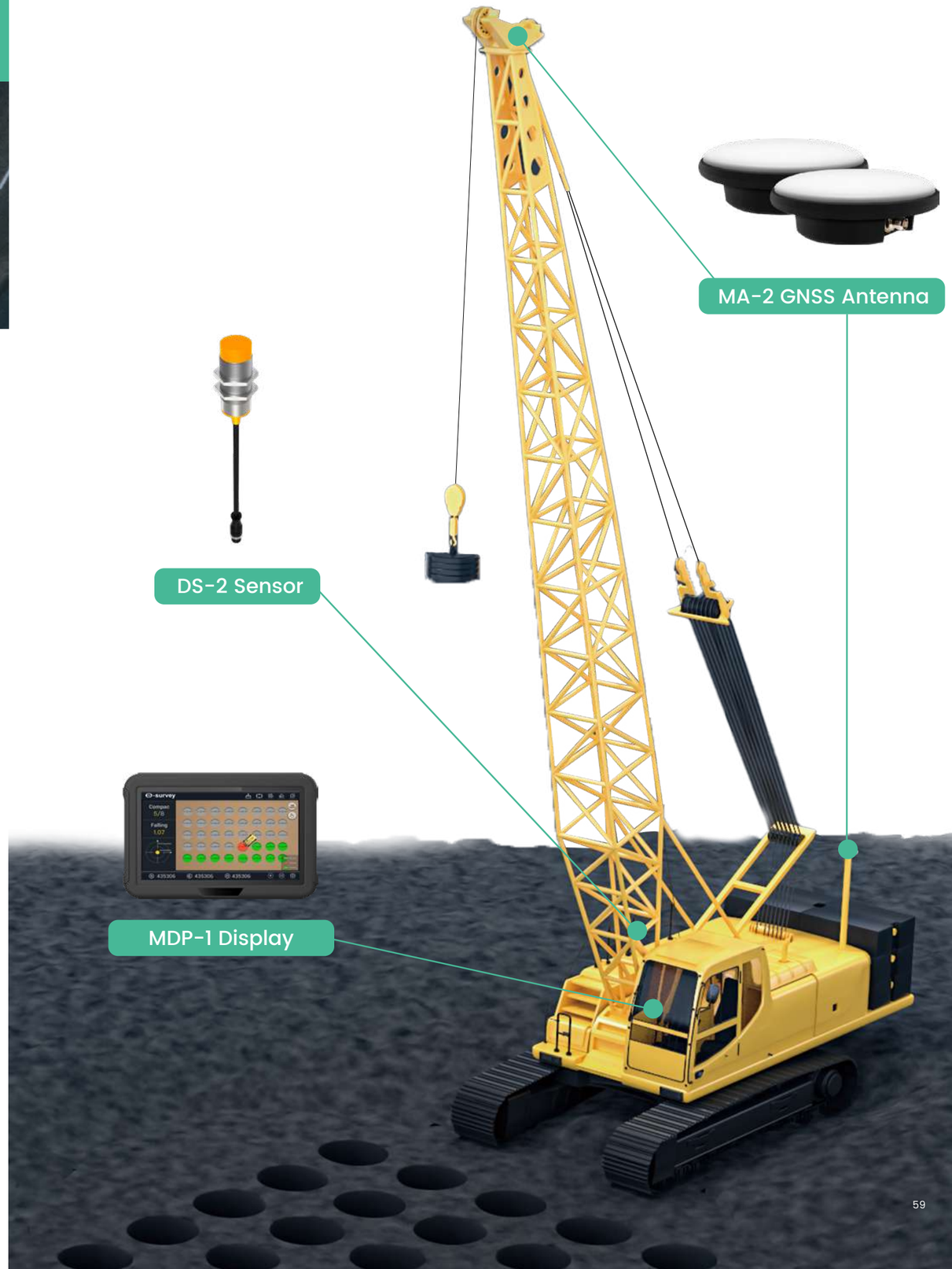
Data Tracing and Platform Communication

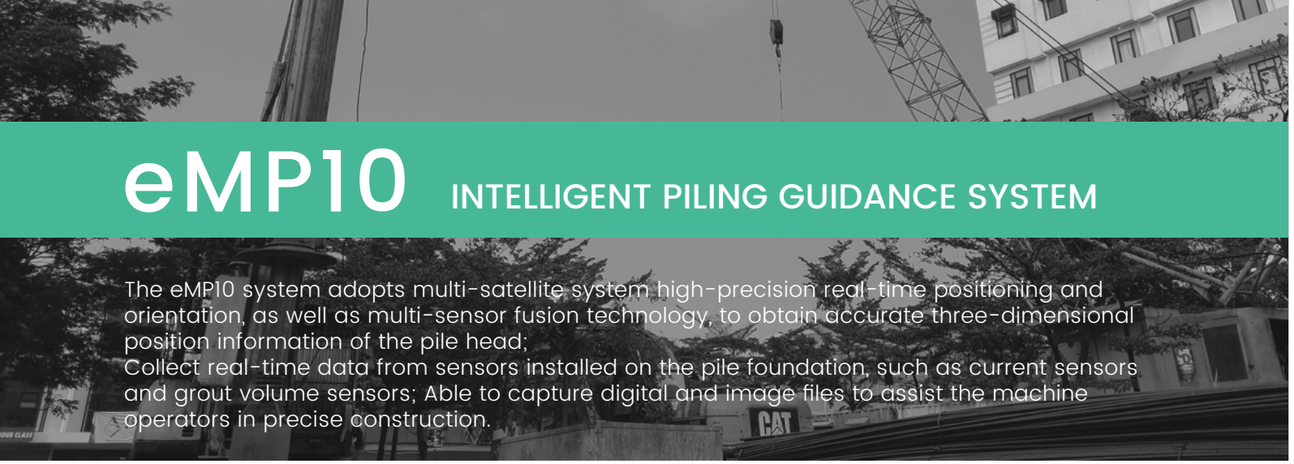
Automatically collect and flow all process data, electronically archiving it for easy data query, statistical analysis, and decision-making support.
Construction process data visualization displays in real time, allowing for playback of the construction process.
Communicate with the digital construction management platform in two directions ways.
Remotely send out construction tasks and visualize construction work data.

Wide Application

Widely used in foundation reinforcement projects for residential buildings, highways, airports, railroads, squares, stadiums, industrial plants, ports, wharves, warehouses, petrochemical plants, and nuclear power plants.

Datasheet





eMP10 INTELLIGENT PILING GUIDANCE SYSTEM

The eMP10 system adopts multi-satellite system high-precision real-time positioning and orientation, as well as multi-sensor fusion technology, to obtain accurate three-dimensional position information of the pile head;
Collect real-time data from sensors installed on the pile foundation, such as current sensors and grout volume sensors; Able to capture digital and image files to assist the machine operators in precise construction.

Supported Platforms

Connect with digital construction management platform for realize two-way data transmission and remote quality and progress management.

Data Intuition

Load the pile point design file and visualize the plan.

Quick Guiding

Pile point guiding to the pile is precise and quick with the pile head orientation data.

Data Monitoring

Real-time depth monitoring for drilling and piles.

Error Monitoring

Track the pile frame's tilting conditions from the beginning to the present, and display the overall verticality deviation in real time.

Power Supply Monitoring

Monitor the real-time value of drilling current in the drilling rig while drilling, and record any abrupt change in the holding layer.

Adaptable

Strong R&D capabilities; Support a variety of piling machinery: static pile, CFG long auger drilling rig, cement mixing pile, photovoltaic piling rig, rotary drilling rig, down the hole drilling rig, drainage sheet pile, and rotary spraying pile.

In-construction Inspection

Real-time monitoring of drilling speed.

Datasheet

eMG30 3D AUTOMATIC CONTROL SYSTEM FOR MOTOR GRADERS

The eMG10 system improves the construction quality and efficiency of earth-moving engineering. The system adopts GNSS RTK high-precision positioning technology, IMU, and hydraulic control technology to calculate the three-dimensional coordinates of the grader blade in real time. And, according to the three-dimensional design drawings on the vehicle tablet, the blade attitude is controlled in real time, with absolute elevation accuracy of centimeters.

Real-Time Automatic Blade Control

Its automatic real-time blade control adjusts the blade to the design surface, achieving finished grade accuracy in less time. One or two times the demand accuracy. It requires no more surveyor besides the motor grader, minimizes errors and rework, and significantly increases productivity.

Convenient Operation

Sound prompts, such as operation and danger warning prompts, etc.
Graphical and numerical indication of the relative position of the actual shovel blade and the design surface.
3D visual guidance is intuitive and easy to understand, improving the smoothness of the working surface and ensuring rapid modeling.
Work accurately even at night when the field of vision is limited.
Support online version updates and quick registration.
Support the generation of design files on the client side for faster construction.
Support the import and export of coordinate conversion parameters and calibration files to speed up the system calibration process.
Multiple calibration files can be stored and switched.

Easy Drive in Accuracy

It requires no more experienced motor grader driver. Automatic blade control system controls the blade based on the design, and drive the grader easily without any concern about the cutting performance.

Site Safety

Stakeless construction enhances the safety of the construction site.
Electronic fence improves site safety.
Precise and efficient. Reduce the driving requirements. Support rapid construction molding and quality control.
Manual and automatic control modes can be effortlessly switched.

Datasheet

eMR10 GNSS INTELLIGENT ROAD ROLLER SYSTEM

The eSurvey eMR10 intelligent road roller compaction system adopts high-precision Beidou positioning, compaction sensor, and temperature sensor technology.
The eMR10 digitally and graphically displays and records the construction process data in real time, collects and monitors the speed and trajectory of vehicle travel, compaction value, vibration status, milling temperature, and other key parameters.
The data is transmitted back to the synchronized digital construction management platform in real time to generate customized reports, ensuring the construction quality of rolling.
The eMR10 is widely used for earth and stone layered filling, subgrade, and surface grinding on a variety of projects, including railroads, highways, dams, and harbors.

Adaptation Flexibility

Support the global coordinate library and provide multilingual versions;
Support Athena Engine RTK with L-Band China accuracy, intelligent receivers can achieve centimeter-level accuracy;
Support multi-project and multi-site management, and can be quickly switched between multiple sites;
Support network differential.
Support the integrated positioning board card program of the display and control terminal, easy installation;
Support the reception of RTCM1021-1027 conversion parameters.
Adaptable to single-steel wheel, double-steel wheel, rubber wheel, and impact mill models.

Real Effectiveness

Real-time display of the number of rolling passes, rolling speed, rolling temperature, compaction, and other index values as well as the vibration status of rolling;
Real-time recording of the actual data of layered filling and rolling, reducing rework and ensuring the rate of one-time passing inspection;
Support the digital construction management platform by enabling two-way transmission and facilitating the visualization management of remote quality and progress.

Operation Convenience

Sound prompts, such as operation and danger warning prompts, etc.
Real-time display of key parameters and completion status of the crushing process with graphics, numerical values, and other methods;
Set a horizontal guide line to avoid missing areas during compression;
Navigation function;
Support online version updates and speedy registration via networking;
Support the import and export of coordinate conversion parameters and calibration files to speed up the system calibration process.
Support WiFi connection to the rover station and automatic acquisition of coordinate points;
Enable fast display of receiver and sensor connection status and data; Discover abnormal situations and deal with them promptly.

Site Safety

Stakeless construction and automation enhance the safety of the construction site;
Implement electronic fencing, creating danger avoidance zone, and reducing accidents.
Reduce labor costs while protecting the people from the harsh construction surroundings.

Datasheet

MA-2 GNSS Antenna

MDP-1 Display

CS-2 Sensor

eMB10

3D INTELLIGENT SYSTEM FOR BULLDOZERS

The eMB10 integrates multi-constellation precision positioning, sensor fusion, and real-time 3D guidance for bulldozer blade guidance or control. Using 3D data as a reference, the system rapidly meets design specs without traditional surveying.
The system enables round-the-clock operation by any operator, hence ensuring speedy and accurate task completion, reducing rework, and enhancing productivity and project profits.

Flexibility

Support global coordinate library, suitable for global users, and provide multilingual versions.
Support Athena engine RTK and L-Band China accuracy; Even without the base station, the intelligent receiver can reach centimeter-level accuracy.
Support network differential.

Convenient Operation

Sound prompts, such as operation and danger warning prompts, etc.
Graphical and numerical indication of the relative position of the actual shovel blade and the design surface.
3D visual guidance is intuitive and easy to understand, improving the smoothness of the working surface and ensuring rapid molding.
Work accurately even at night when the field of vision is limited.
Support online version updates and quick registration.
Support the generation of design files on the client side for faster construction.
Support the import and export of coordinate conversion parameters and calibration files to speed up the system calibration process.
Multiple calibration files can be stored and switched.

Real Validity

Self-innovation technology achieves system accuracy of 3cm RMS.
The digital construction management platform enables two-way transmission of design documents, construction tasks, and data to the cloud in real-time.
The data is real and effective for managing remote quality and progress visualizations.

Site Safety

Stakeless construction enhances the safety of the construction site.
Electronic fence improves site safety.
Precise and efficient. Reduce the driving requirements. Support rapid construction molding and quality control.
Manual and automatic control modes can be effortlessly switched.

Datasheet

MDP-1 Display

MA-2 GNSS Antenna

MI-1 Inertial Sensor

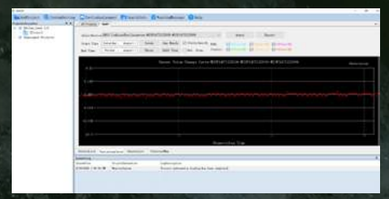
Deformation Monitoring

The primary goal of safety monitoring is to monitor, warn, and manage various safety risk sources in real time through technology methods, ensuring the safe development of the industrial and living activities. It is widely employed in a variety of application scenarios, including urban infrastructure, industrial production, natural catastrophe prevention and control, and public safety.Based on key products eDMR1, eDMR2, NET20, eSAR50, eMOS data processing software, and Guardian, customized solutions can be provided for different security monitoring needs.

eDMR1

eDMR2

eSAR50



eMOS Software

Guardian Software

eDMR1

INTEGRATED GNSS MONITORING RECEIVER

Designed and developed independently by eSurvey, the eDMR1 offers outstanding stability, reliability, and user-friendly operation. It solves the problems of the high cost and complex deployment consumption of traditional GNSS monitoring systems, delivering high-quality, all-weather monitoring data for applications such as geological disaster detection and reservoir dam deformation monitoring. The eDMR1 supports simultaneous connection with multiple sensors—including rainfall, water level, osmometer, flow meter, and camera—and seamlessly transmits all collected data. With powerful edge computing capabilities and support for on-site static data solution, it enables front-end smart analysis and early warning forecasts even under extreme conditions or in areas without public network coverage, thanks to its built-in warning model based on multi-parameter calculation and analysis.

High Static Accuracy

Horizontal accuracy can be up to ±2.5 mm+0.5 ppm and vertical accuracy can be up to ±5 mm+0.5 ppm.

High Reliability

Protection level is IP68. Built-in large-capacity lithium battery which can support 25 hours continuous working in case of abnormal power outage.

Independent Front-End Solution

With the built-in embedded solution engine, eDMR1 can complete the dynamic and static solution. The solution results can directly access to the RTU/monitoring platform.

Multiple Communication Mode

It supports 4G, LoRa, Wi-Fi, RS485 and RJ45.

Power Memory Storage

It owns internal 32GB on-board memory, which can store data more than 2 years. Recording interval 10s.

External Sensors

It supports monitoring sensors with RS485 modbus protocol to provide power and network for sensors.

Datasheet

eDMR2

INTEGRATED GNSS MONITORING RECEIVER

eDMR2 offers integrated 3D displacement and universal GNSS monitoring for tilt angle, acceleration, low power consumption, high integration, and edge computing. The device has a power consumption of less than 1.5 watts and can automatically alter the monitoring mode based on the deformation trend to suit the requirements of the deformation body.
The requirements for monitoring frequency and accuracy throughout the same deformation stage apply to geological disaster monitoring, mining monitoring, reservoir high edge slope monitoring, highway slope monitoring, hazardous building monitoring, and other applications.

High Static Accuracy

The horizontal accuracy is ±2.5 mm + 0.5 ppm, while the vertical accuracy is ±5 mm + 0.5 ppm.

High Integration & Low Power Consumption

Reduce power consumption and increase battery life by further optimizing the power consumption of key components. Integrated design, easy installation, and convenient use.

Independent Front-End Solution

The eDMR2 can complete both dynamic and static solutions thanks to its integrated embedded solution engine. The RTU/monitoring platform has immediate access to the solution findings.

Intelligent Triggering Mechanism

The receiver is equipped with MEMS sensors that support MEMS linkage and automatic activations of encrypted observations upon detecting specific events.

Powerful Memory Storage

It has 32GB of internal on-board memory and can store data for more than two years (recording interval 10s).

High-Level Protection

IP68 provides high-level protection against component damage and harsh weather conditions, making field operations easier to manage.

Datasheet

eSAR50

NON-CONTACT RADAR FOR SUBMILLIMETER LEVEL MONITORING

The eSAR50 Slope and Monitoring system, independently developed by eSurvey, delivers sub-millimeter non-contact high-precision monitoring. It supports 360° omnidirectional scanning, 24/7 operation, flexible deployment, and multiple power and communication options. Widely applied in mining, geological hazard assessment, landslip rescue, structural deformation monitoring, and energy security monitoring.

Wide Monitoring Range

Enable comprehensive monitoring over long distances.

High Monitoring Accuracy

Achieve submillimeter-level deformation measurement in real time.

Easy Portability

Designed for disassembly and reassembly to facilitate transportation and portability.

User-Friendliness

Simple to set up and operate.

Strong Environmental Adaptability

Support 7*24 hours of operation in severe settings.

Cross-Platform Compatibility

The warning rules are versatile and can be adjusted on demand to fit various scenarios of monitoring applications.

Datasheet

eMOS

eMOS is a professional GNSS monitoring data analysis and processing software designed for landslide, mine, bridge, and dam monitoring applications. It primarily provides data processing capabilities and equipment operation management functions, supporting the analysis of sensor data from various types including GNSS, rainfall, mud level, inclination acceleration, inclinometer measurements, and seepage pressure.

Engines

Post-Processing Engine

Distributed Processing Engine (Edge Computing)

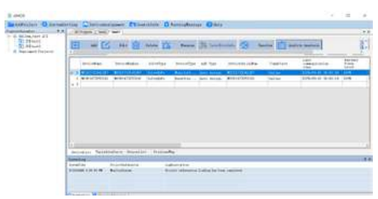
Instant Linkage Between Inspection and School Engines

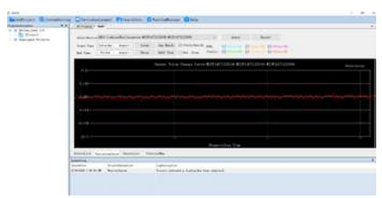
RTK Engine

Fully Functional Remote Management Engine

Main Functions

- Support Multi Processing Engine
- Multi-Project Management
- Multi-Base Station Decoding
- Monitor Device Status
- Remote Operation and Maintenance





Datasheet

Guardian

The eSurvey Guardian software supports a wide range of access protocols and is compatible with ground-based radar, GNSS, and other perception sensors. It efficiently processes, analyzes, and visualizes data transmitted from field devices. By integrating with customizable warning models, the system delivers timely alerts to support rapid response to potential risks.

Strong Compatibility

Can support radar, video, GNSS, and various sensor data access and display.Additionally, it supports real-time mapping, rendering, playback, and range screening of radar images.

GIS Engine

Three dimensional display of monitoring results, supporting map display on platforms such as Amap and Google, as well as loading high-definition aerial base maps.

Artificial Intelligence Engine

Embedded professional geological models and artificial intelligence prediction models for stronger landslide warning capabilities.

Rich Alarm Methods

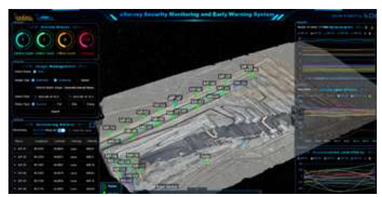
Multiple audio-visual alarm methods such as SMS, email, flashing screen, etc., and can be connected to external alarm devices.

Alarm Area Shielding

Users can customize the shielding area to avoid unnecessary alarms caused by construction and other factors.

High Adaptability

Supports data protocol access such as MQTT, TCP, Modbus, and has custom data format configuration.



Datasheet

Monitoring Solution

The security monitoring solution consists of three main parts: IoT sensing terminals, data transmission networks, and data analysis platforms. Adopt different monitoring methods and product combinations for installation and operation in different monitoring scenarios, monitoring objects, and network environments to meet the monitoring expectations of the monitoring objects.

Platform

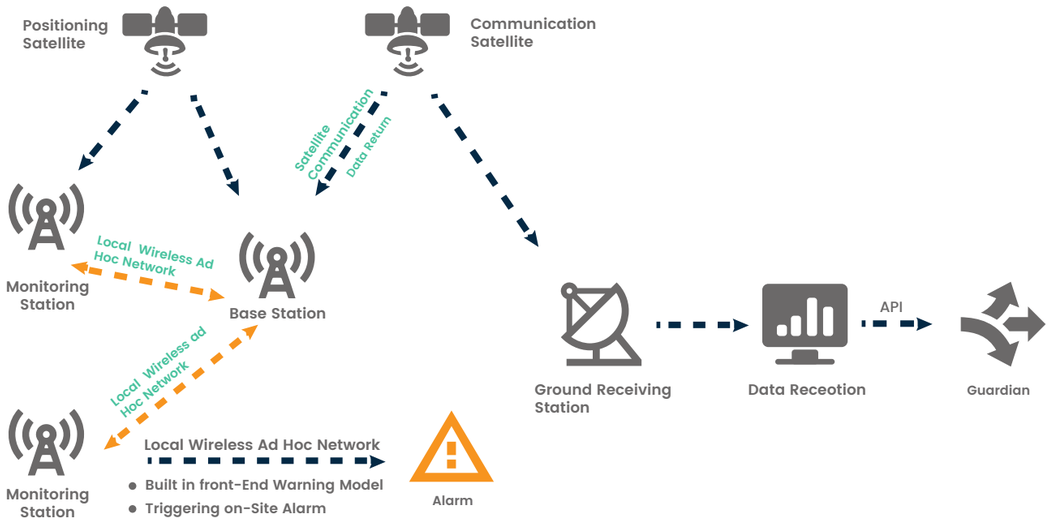
GNSS displacement monitoring products

Acquisition and communication products

Non contact products

Perception sensor products

GNSS Front-End Solution



Front End Calculation

Support adaptive modes for backend and frontend computation, adapting to different application scenarios and working conditions;

On-Site Alarm Module

Featuring a built-in warning model, it activates both audible and visual alarms on-site when triggered.

Communication Satellite Transmission

It can be paired with a satellite communication module to enable reliable data transmission in extreme conditions or areas without signal coverage.

Integration of Point and Surface

By combining contact monitoring products with non-contact monitoring equipment, point and surface monitoring can be achieved.

Multi-Element Verification

GNSS has a built-in inclinometer that can be cross checked with high-precision monitoring results calculated by the front-end, reducing false alarm rates.

Simple and User-Friendly

All products adopt the design concept of low power consumption, easy deployment, and easy maintenance, reducing the installation, operation, and maintenance work of equipment.

Localized Deployment

Computing software and alarm software can be fully deployed on local servers to improve data security.

Local Networking and Edge Computing

The products adopted in the scheme can carry out edge computing through Lora network, and then carry out multi factor data fusion early warning combined with different deployed sensors.

Strong Compatibility and Adaptability

The modular architecture of warning software can quickly adapt to different languages, maps, and related functions. It has powerful data access capabilities and supports custom data format access.

Reservoir Dam Monitoring

Monitoring of Highway Slopes

Geological Hazard

Mine

Hydropower Station

Handheld

eSurvey data collection products are engineered to streamline field operations, enhance positioning precision, and cater to diverse professional needs. Equipped with advanced GNSS technology supporting multiple constellations, powerful processors, and rugged designs featuring high IP ratings and drop resistance, these products excel in harsh outdoor environments. They are ideally suited for applications such as GIS data collection, land surveying, logistics, and environmental monitoring, making them reliable choices for field professionals.

P9IV

P8III

eSA3

eT80(H)

P9IV

A PROFESSIONAL RUGGED CONTROLLER FOR ANY APPLICATIONS

The eSurvey P9IV is a professional-grade Android 11 controller, designed for long time fieldwork. With IP67 certified, the P9IV is suitable for any tough environments. With its ergonomic design, the P9IV offers easy one-handed use and provides extended flexibility during fieldwork. Featuring a MTK 8-core 2.0 GHz processor, Bluetooth 5.0, and a 5.0 inch HD touchscreen, the P9IV provides excellent performance and smooth experience either in or outside the field.

15 HOURS

Impressive Battery Life

Experience 30-day standby time, and continuously work up to 15 hours while the P9IV is connected to a GNSS receiver via Bluetooth and collects data, driven by its 6400 mAh rechargeable lithium-ion battery, and quickly fully charge your P9IV within 3 hours.

Google Service Framework

GMS is a collection of Google applications and APIs, including Google Search, Google Chrome, YouTube, and Google Play Store, that help support functionality across devices. These apps work together seamlessly to ensure your device provides a great user experience right out of the box.

32GB

Large Memory Storage

Store the data for a longer time, supported by its internal 32GB storage and TF card expansion (max 512GB).

5.0 HD

5.0-inch HD Touchscreen

With the Casio BlankView patent, the P9IV provides a clearer view of the screen outdoors, it is brighter and more power-efficient. Wet hand and glove mode supported.

Rugged Design

Integrated magnesium alloy bracket, provides uniform stress at every angle and high strength.

5.0

Bluetooth 5.0

The latest version of Bluetooth technology, better performance.

Datasheet

P8III

HIGH-PERFORMANCE RUGGED CONTROLLER

The eSurvey P8III is a high-performance, rugged controller offering comprehensive protection. Powered by a MediaTek industrial-grade chip, it boasts an IP68 rating for harsh environments and an ergonomic design for easy one-handed use. Its 9000mAh battery supports 22 hours of continuous work, while its military-grade construction can withstand 1.5-meter drops. This makes it ideal for outdoor surveying, mapping, and geographic information collection.

8-core

Superior Performance with Advanced Specs

Handle complex data collection tasks smoothly, powered by an 8-core 2.0 GHz MediaTek industrial-grade chip for superior processing speed.

IP68

IP68 Protection for Extreme Environments

Withstand heavy rain, dust, and harsh conditions even when the charging port rubber plug is open, ensuring reliability in extreme outdoor scenarios.

9000mAh

9000mAh Long-Lasting Battery

Support 22 hours of continuous operation in field tasks, eliminating concerns about power shortage during long workdays.

Powerful Audio in Noisy Sites

Ensure clear transmission of voice prompts and instructions in noisy environments, via the powerful built-in audio system.

5.5 HD

5.5-inch Sunlight-Readable Screen

Maintain clear visibility under strong sunlight with 500nit brightness, and enable smooth operation even with wet hands, ensuring uninterrupted fieldwork in diverse weather conditions.

Full QWERTY Keyboard for Easy Operation

Improve blind operation efficiency in fieldwork, thanks to the physical surveying and mapping keyboard designed for intuitive use.

Datasheet

eSA3

PORTABLE SMART ANTENNA FOR GIS APPLICATIONS

Proudly developed on a brand-new platform, and built upon our most popular eSA2, the eSurvey eSA3 is an all-new, easy-to-use, wearable, portable smart antenna that provides professional-level positioning data to any Android & iOS devices.

Full Constellations and Multi-Frequency

The eSA3 supports BDS/GPS/GLONASS/Galileo/QZSS constellations, comprehensive GNSS signal trackings, 1408 channels, and fully supports BDS-3.

Centimeter-Level Positioning

Meet professional high-precision needs with centimeter-level accuracy by delivering 8mm+1ppm planar and 15mm+1ppm elevation precision.

Support for B2b-PPP and E6-HAS Services

Elevate standalone positioning accuracy and adaptability by supporting B2b-PPP and E6-HAS services.

Rugged and Durable

Withstand harsh field conditions featuring IP67 protection, -20℃ ~+65℃ operating temperature, and 1.6m drop resistance.

Ideal for Most GIS Applications

Integrate seamlessly into most GIS workflows without separate adaptation by directly providing differential corrections to their applications.

Device Network (4G) for Differential Data Acquisition

Acquire differential data directly by inserting a Nano SIM card to enable the device's 4G network.

Datasheet

eT80(H)

HIGH-PRECISION RUGGED ANDROID TABLET

The eSurvey eT80 is an 8-inch rugged Android tablet designed for harsh working environments, combining high performance, precision positioning, and durability to meet the demands of outdoor operations. The eT80 features a powerful processor, long-lasting battery, and advanced GNSS technology, making it ideal for applications such as GIS mapping, land surveying, logistics, and environmental monitoring. With its rugged design and user-friendly interface, it ensures reliable performance even in extreme conditions.

Powerful Performance

Handle large datasets and multitasking smoothly, powered by a 2.0GHz octa-core processor and Android 13 system. Equipped with 6GB RAM and 128GB ROM, ensuring efficient operation for industrial applications.

Rugged & Durable Design

Withstand harsh outdoor/industrial conditions reliably, featuring IP67 dust/water resistance and 1.2m concrete drop survival.

Sunlight-Viewable High-Brightness Screen

Work efficiently under direct sunlight with an 8-inch Full HD (1280 x 800) screen and 800 nits brightness. The capacitive touch panel supports glove and wet-finger operation, enhancing usability in all weather conditions.

High-Precision GNSS Positioning

Deliver centimeter-level accuracy for critical surveying and GIS tasks, enabled by multi-constellation (GPS, BDS, GLONASS, Galileo) compatibility and RTK technology.

Long-Lasting Replaceable Battery

Stay productive all day with an 8200 mAh rechargeable and replaceable lithium-ion battery, delivering up to 15 hours of continuous use. Quick Charge 3.0 technology minimizes downtime by reducing charging time.

Advanced PPP Capabilities

Enable high-precision positioning in remote areas without CORS stations, supporting Galileo HAS and other precise point positioning services for reliable accuracy.

Datasheet

CORS

The eSurvey Continuous Operation Reference System solution integrates high-performance hardware and professional software, aiming to provide users with high-precision and highly reliable positioning services. The core components of this solution include the NET series receivers and the software system RootNet. The solution can be applied in fields such as surveying, precision agriculture, vehicle positioning, monitoring, and UAV.

NET10

NET20 PLUS

UA35

UA92

RootNet

NET10

GNSS REFERENCE STATION RECEIVER

The eSurvey NET10 is specially designed for a user who needs to set up reference stations. With the 3D choke-ring antenna, the device provides stable correction data to the rover. Integrated with Bluetooth, WIFI, Web UI, ethernet, and serial port, NET10 brings the possibility for more applications.

Multi-Constellation and Multi-Frequency: Powerful Satellite Tracking Capacity

Obtain all available and reliable data sources, with total channels and all signals (GPS, BDS, GLONASS, GALILEO, IRNSS and QZSS) of GNSS tracking.

Web UI: Easy-to-Use

Enjoy convenient remote connection to the web user interface, including viewing position status, configuring a device, downloading data, and updating firmware with any phone, tablet, or PC.

Smaller in Size: Owning All Major Features

Easily carry it in a variety of complex environments, benefit from its lightweight and compact design, but enjoy its comprehensive functions.

Working Safely: Higher Security

8 - 36 V dc with over-voltage protection.

Smart Alert: An Instant Reminder

Receive an alert email when the number of satellites falls below the set value, the temperature exceeds the safe range, or the memory storage is nearly full.

Rugged Design: Better Resistance to Shock and Fall

Survive a 2 m drop from a concrete floor. IP67 certification ensures operation in various tough environments.

Datasheet

NET20 PLUS

HIGH-PERFORMANCE GNSS REFERENCE STATION RECEIVER

The eSurvey NET20 PLUS is designed for high-precision CORS reference stations. With a 13600 mAh battery that can ensure continuous recording and respond to the emergency. Users can use any phone or tablet to configure devices easily from the powerful Web UI. The rich data interface demands various applications such as monitoring and machine control.

Multi-Constellation and Multi-Frequency: Powerful Satellite Tracking Capacity

Obtain all available and reliable data sources, with total channels and all signals (GPS, BDS, GLONASS, GALILEO, IRNSS and QZSS) of GNSS tracking.

Complete Functional Continuous Operating Reference Station

- **Richer data interface**

  Enjoy multiple data interfaces, such as serial port, 1PPS, and event to various applications (e.g., meteorology), making versatile applications possible, such as monitoring and machine control.

- **Richer wireless communication**

  Enjoy multiple methods of sending and receiving data, including Wi-Fi, Bluetooth, Ethernet, external radio, and SIM card, which offers more possibilities for communication.

Multiple Remote Administration Methods

- **Support FRP to remote control**

  Users can remotely operate Web UI through the FRP setting to achieve checking or change settings without going to the site.

- **Support FTP and SFTP**

  Users can set upload recording data to the FTP or SFTP server automatically or select the option on the download page.

Visualization of Working Status

With a visual display screen, signal lights, and operation buttons, users can more conveniently know the current state of the NET20 Plus and make simple operations.

Safe and Reliable Continuous Operating Reference Station

- **Impressive battery life**

  Work up to 18 hours to respond to emergencies, such as power interruption, and no longer worry about a day's work; its 13600 mAh battery makes your data safe.

- **Upgraded smart alert**

  Receive an alert email and SMS once the charger is disconnected, the battery level is too low, the temperature is too high, or memory storage is almost complete.

- **Larger memory storage**

  Store the data for a longer time, supported by its internal 32 GB storage and TF card expansion, and manage data more conveniently, supported by FTP push.

Datasheet

UA35 GNSS ANTENNA

The eSurvey UA35 covers the reception of GNSS signals such as GPS, GLONASS, BDS, Galileo, QZSS, and L-Band. It has the superior performance of the antenna phase center. Its small size and light weight make it easy to carry around and operate.

Powerful Satellite Tracking Capacity

Obtain all available and reliable data sources, with total channels and all signals (GPS, BDS, GLONASS, GALILEO, IRNSS, QZSS, and SBAS) of GNSS tracking.

Superior Antenna Phase Center

Further, improve the reliability of your measurement work due to the coincidence of the phase center and mechanical center that can make the phase center error less than 2 mm.

Small size and Light Weight

Easily carry it in a variety of complex environments.

High Gain (GPS L1 > 6 dBi, GPS L2 > 5 dBi)

Experience strong GNSS satellite tracking ability, and make your measurement work and data more reliable due to the excellent antenna gain.

Rugged Design

Use it for many years with IP69K design that is protected against the ingress of dust and high temperature, high-pressure water - making products with this certification ideal for use in conditions where equipment must be carefully sanitized.).

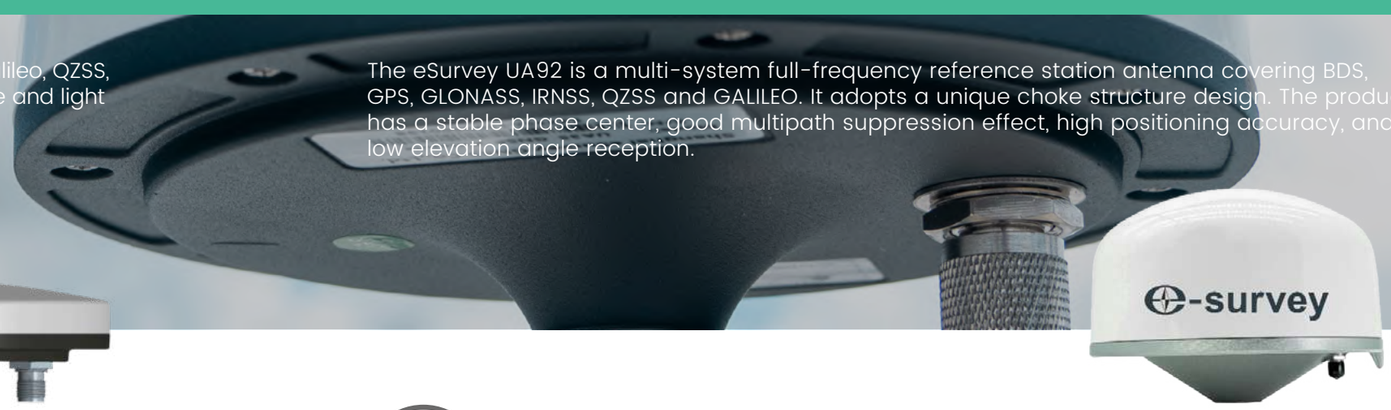
Excellent Axial Ratio Performance

Axial ratio ≤6 dBi makes the UA35 antenna performance better.

Datasheet

UA92 HIGH-GAIN CHOKE RING ANTENNA

The eSurvey UA92 is a multi-system full-frequency reference station antenna covering BDS, GPS, GLONASS, IRNSS, QZSS and GALILEO. It adopts a unique choke structure design. The product has a stable phase center, good multipath suppression effect, high positioning accuracy, and low elevation angle reception.



Powerful Satellite Tracking Capacity

Obtain all available and reliable data sources, with total channels and all signals (GPS, BDS, GLONASS, GALILEO, IRNSS, QZSS, and SBAS) of GNSS tracking.

High Phase Center Accuracy

Experience sub-millimeter phase center accuracy with higher stability.

Excellent Multipath Suppression Effect

No longer need to worry about interference by multipath due to the unique choke coil design.

High Gain (≤5.5 dBi)

Experience strong GNSS satellite tracking ability, and make your measurement work and data more reliable due to the excellent antenna gain.

Rugged Design for Harsh Environments

Use it for many years with IP67 design, which is 95% protected against solid objects like dust and sand, and it has been tested to work for at least 30 minutes under 15 cm to 1 m of water.

Multiple Applications

The UA92's compact size and light structure can be used for machine control, deformation monitoring, Marine mapping, and other fields.

Datasheet

RootNet

VRS SOFTWARE

RootNet is a powerful ground-based augmentation platform software that can provide customers with stable GNSS correction services. The software features advanced algorithms, which can perfectly integrate with various GNSS board data. It also has comprehensive user and base station management functions, facilitating operation and maintenance, and can provide services for various industries.

Multiple Differential Format for Data Output

Output multiple differential formats, including RTCM23, RTCM30 and RTCM32.

Source Node Broadcast for VRS and Nearest

Freely choose source node types, including the VRS source node, the differential source node of the actual base station, or the differential source node of the nearest real base station.

High Compatibility

After years of algorithm iterations, the software has achieved compatibility with the differential data (RTCM) output by most manufacturers' device.

Multi-level Account Management on Website

Log in to the web-based management platform as an administrator or end-user:

- Administrator: including viewing base station information, managing coordinate system, managing Ntrip users, monitoring the server, etc.
- End-user: querying information, checking station information, downloading static data, viewing track, etc.

Datasheet

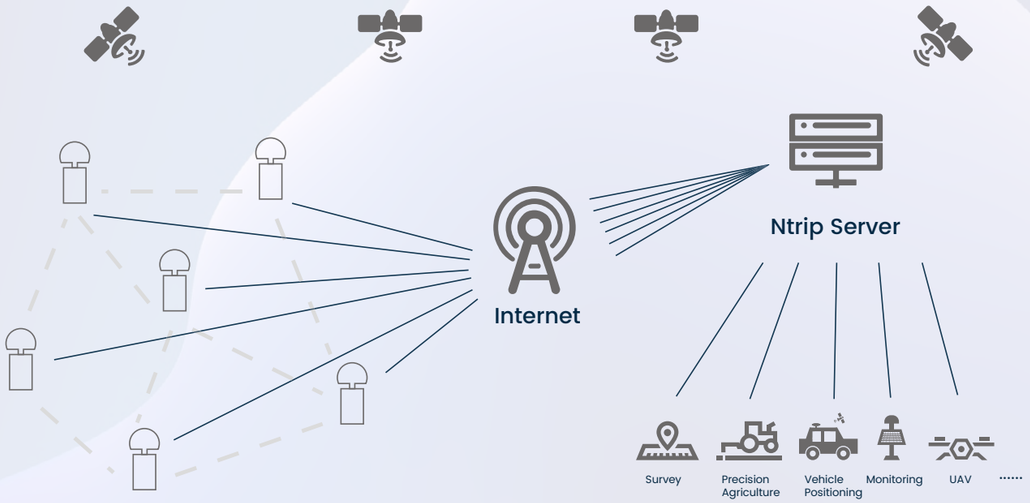
CORS Solution

As the infrastructure of the high-precision positioning industry, CORS service can bring great convenience to you to obtain high-precision positioning. CORS service can help you achieve the following:

- No longer need to set up a separate base station to obtain centimeter-level positioning.
- Do your RTK measurement even without known point coordinates.

You can use the CORS service to get centimeter-level positioning in the following terminals where is within the CORS service coverage:

1. GNSS receivers for field construction measurements
2. Handheld GIS collectors
3. Agricultural precision control navigation devices
4. Other high-precision positioning terminal devices supporting CORS connection



eSurvey CORS solution includes the following:

- GNSS receiver: NET10 , NET20 PLUS
- Antennas: UA92
- Single base station service software: GNSSNet
- VRS multi-base station service software: RootNet

NET10

NET20 PLUS

UA92

GNSSNet

RootNet

You can freely choose one of the following eSurvey CORS solutions:

- A combination of CORS GNSS receiver, CORS antenna, and single base caster software, using our solution in a small area.

  Good RTK positioning results can be achieved in the area with the base station as the center of the circle and within a radius of 10 km.

- A combination of CORS GNSS receiver, CORS antenna, and VRS multi-base software for a geographical area with complete coverage of CORS service.

  Better RTK positioning results can be achieved in the net-shaped area composed of all base stations.

P-BOX

eSurvey integrated navigation receiver is dedicated to providing high-precision satellite positioning services for vehicle navigation, machine control, unmanned driving and other systems. The dual antenna design of the device, combined with various sensors, can output multiple reliable data for the control system, meeting the usage requirements of various scenarios.

eHP10

eHP10 Lite

eHP10

INDUSTRY DESIGN HEADING AND NAVIGATION GNSS RECEIVER

As a heading GNSS receiver, the eHP10 integrates dual-antenna, TX/RX radio, lora, serial port and 4G network, with a variety of working modes, suitable for Machine control, Marine survey, Geodesy and other industries.Due to its unique interface and internal design, the eHP10 greatly improves the waterproof and shock resistance performance, and can work stably in a variety of environments.

Dual Antenna: Heading and Navigation

Connect positioning and heading antennas to the eHP10 to output heading information and be used in scenarios with heading demands.

Richer Data Interface: Making Versatile Applications Possible

Enjoy multiple data interfaces, such as DB9 serial port, M12 serial port, 1PPS, CAN, Event, UHF, to various applications and etc., to conveniently facilitate synchronization with other devices.

Rugged Design: Designed for Harsh Environments

IP67

Drop it from a height of 1.5 m without any damage and enjoy a dustproof and waterproof rating of IP67, salt spray proof level of C4, mold proof level 1 to use it in all harsh vibration environments, such as vehicles and aviation, due to its simple and modular internal structure design.

Internal Radio/Lora

The eHP10 is equipped with a TX/RX radio module, supporting most of the radio protocols on the market. It also supports the Lora option and features low power consumption and long distance.

Rich Wireless Communication

The eHP10 supports Wi-Fi, Bluetooth, Ethernet, and SIM cards. Users can send or receive data through any method.

Suitable for Base and Rover

Its lightweight design makes the eHP10 perfect as a rover or base station for multiple applications.

Datasheet

eHP10 Lite

HIGH PRECISION GNSS/INS SENSOR

The eHP10 Lite is a high precision GNSS sensor designed by eSurvey to provide precise positioning and heading data by combining satellite positioning and inertial measurement technology. The eHP10 Lite has built-in MEMS gyroscope and accelerometer, which greatly improves the reliability, accuracy and dynamics of the system. In the case of cities, trees and other obstructions and multi-path interference with the environment, it can still provide stable data. Suitable for a wide range of applications including UAV, USV, machine control, marine systems, unmanned vehicles, and more.

High Precision Heading and Positioning

Obtain all available and reliable data sources, with total channels and all signals (GPS, BDS, GLONASS, GALILEO, IRNSS and QZSS) of GNSS tracking.

High Integrated Design

The eHP10 Lite built-in high-precision GNSS+MEMS modules, using a powerful combined inertial navigation algorithm, even in harsh environments, still can provide high reliability of data.

Rich Communication

Enjoy multiple methods of sending and receiving data, including 4G, Wi-Fi, Bluetooth, Ethernet, CAN, which offers more possibilities for communication.

High Scalability

The eHP10 Lite supports the connection of various external sensors, such as cameras and lidar, and complies with the JT/T-808 protocol. We can also provide a customized remote monitoring platform.

Ease to Use

5-36v

The eHP10 Lite is small and light, easy to install, and adopts 5-36V wide voltage power supply design, supporting the vehicle cigarette lighter, safety box, and battery power supply.

Remote Control

The eHP10 Lite supports remote upgrade and remote control, facilitating unified device management

Datasheet

e-survey